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16 L12

L13 ANSWER 1 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN GI

The title compds. I [one of X1-X3 = S, and the other two represent C or N atoms; ring A = 6-10 membered aryl, 5-13 membered heteroaryl or partially aromatic heterocyclyl; R1 = H, halo, OH, CO2H, etc.; R2, R3 = H, alkyl, haloalkyl, etc.; n = 2-4; R4 = H, halo, S(alkyl), CN, etc.], that are useful for treating atherosclerosis, dyslipidemias and the like, were prepared and disclosed. E.g., a multi-step synthesis of II, starting from 3-(2-naphthyl)acrylic acid, was given. Compds. I generally have an IC50 in the 3H-nicotinic acid competition binding assay within the range of 1 nM to about 25 μ M. Also compds. I generally have an EC50 in the functional in vitro GTP γ S binding assay within the range of about less than 1 μ M to as high as about 100 μ M. Pharmaceutical compns. comprising the compound I alone or in combination with DP receptor antagonist, are also included.

AN 2007:1204726 CAPLUS Full-text

DN 147:486319

TI Preparation of N-(2-carboxythienyl) amides as niacin receptor agonists

IN Colletti, Steven L.; Tata, James R.; Chen, Weichun; Beresis, Richard T.; Ding, Fa-Xiang; Schmidt, Darby Rye; Shen, Hong; Raghavan, Subharekha

PA Merck & Co., Inc., USA

SO PCT Int. Appl., 58pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PA: | TENT | NO. | | | KIN | D | DATE | | | APPL | ICAT | ION I | NO. | | D | ATE | |
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| | | | | | | | _ | | | | | | | | | | | |
| ΡI | PI WO 2007120575 | | | | | A2 | | 20071025 | | 1 | WO 2007-US8584 | | | | | 20070406 | | |
| | | W: | ΑE, | AG, | AL, | AM, | ΑT, | ΑU, | ΑZ, | BA, | BB, | BG, | BH, | BR, | BW, | BY, | BZ, | CA, |
| | | | CH, | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, |
| | | | GD, | GE, | GH, | GM, | GT, | HN, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KM, |
| | | | KN, | KP, | KR, | KΖ, | LA, | LC, | LK, | LR, | LS, | LT, | LU, | LY, | MA, | MD, | ME, | MG, |
| | | | MK, | MN, | MW, | MX, | MY, | MZ, | NA, | NG, | NI, | NO, | NZ, | OM, | PG, | PH, | PL, | PT, |
| | | | RO, | RS, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SM, | SV, | SY, | ТJ, | TM, | TN, | TR, |
| | | | TT, | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | ZA, | ZM, | ZW | | | | | |

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

US 2006-791019P P 20060411

OS MARPAT 147:486319

IT 688356-71-0 688356-89-0 688356-90-3 688356-95-8 688357-06-4 688357-08-6 688357-09-7 688357-10-0 688357-11-1 688357-12-2 688357-13-3 688357-14-4 688357-15-5 794535-37-8

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (co-drug; preparation of N-(2-carboxythienyl) amides as niacin receptor agonists)

RN 688356-71-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688356-89-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylthio)- (CA INDEX NAME)

RN 688356-90-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688356-95-8 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-bromophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-06-4 CAPLUS

CN Pyrido[3,4-b]indolizine-9-acetic acid, 10-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-1-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-08-6 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4- (methylsulfonyl)-5-[[4-(trifluoromethyl)phenyl]thio]- (CA INDEX NAME)

RN 688357-09-7 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2-chloro-4-fluorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-10-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(2-naphthalenylthio)- (CA INDEX NAME)

RN 688357-11-1 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,3-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-12-2 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-5-[(4-methylphenyl)thio]-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-13-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(phenylthio)- (CA INDEX NAME)

RN 688357-14-4 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-15-5 CAPLUS

CN Pyrido[4,3-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 794535-37-8 CAPLUS

CN Pyrido[1,2-a]indole-9-acetic acid, 10-[(4-chlorophenyl)thio]-3-fluoro-6,7,8,9-tetrahydro-1-(1-methylethyl)-, (9R)- (CA INDEX NAME)

Absolute stereochemistry.

L13 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN GI

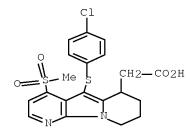
- * STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLINE PRINT *
- AB Title compds. I [X = C or N; Z = (un)substituted aryl or heteroaryl; R1 independently = H, halo, CO2H, CN, etc.; R2 and R3 independently = H, alkyl, haloalkyl, alkoxy, etc.; R4 = H, F, or (un)substituted alkyl; R5 = CO2H, tetrazole, or CONHSO2R6 wherein R6 = (un)substituted alkyl or phenyl; m and p = 1 or 2 such that their sum = 3; n = 2-4; A = 6-10 membered], as well as their pharmaceutically acceptable salts are prepared and disclosed as useful for treating atherosclerosis, dyslipidemias and the like. Thus, e.g., II was prepared by conversion of 3-(4- bromophenyl)propionic acid to the amide with N-hydroxysuccinimide followed by reaction with triflate III to form the 4- bromophenylpropionamide derivative which was coupled with 4- hydroxyphenylboronic acid and hydrolyzed to give the desired product. In the 3H-nicotinic acid competition binding assay, I demonstrated IC50 values ranging from 1 nM to about 25 μM. Pharmaceutical compns. and methods of use are also included.
- AN 2007:912171 CAPLUS Full-text
- DN 147:277179
- TI Preparation of carboxamidocyclohexenylcarboxylic acids derivatives as niacin receptor agonists, compositions containing such compounds and methods of treatment
- IN Raghavan, Subharekha; Schmidt, Darby Rye; Colletti, Steven L.; Smenton, Abiqail Lee
- PA Merck & Co., Inc., USA
- SO PCT Int. Appl., 96pp.

CODEN: PIXXD2

- DT Patent
- LA English

FAN.CNT 1

CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM US 2006-765853P P 20060207 MARPAT 147:277179 OS 688356-71-0 688356-89-0 688356-90-3 ΙT 688356-95-8 688357-06-4 688357-08-6 688357-09-7 688357-10-0 688357-11-1 688357-12-2 688357-13-3 688357-14-4 688357-15-5 794535-37-8 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (claimed co-drugs for administration; preparation of cyclohexylcarboxylates as niacin receptor agonists) 688356-71-0 CAPLUS RN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-CN tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)



RN 688356-89-0 CAPLUS
CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9tetrahydro-4-(methylthio)- (CA INDEX NAME)

RN 688356-90-3 CAPLUS
CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(3,4-dichlorophenyl)thio]6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688356-95-8 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-bromophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-06-4 CAPLUS

CN Pyrido[3,4-b]indolizine-9-acetic acid, 10-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-1-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-08-6 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4- (methylsulfonyl)-5-[[4-(trifluoromethyl)phenyl]thio]- (CA INDEX NAME)

RN 688357-09-7 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2-chloro-4-fluorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-10-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(2-naphthalenylthio)- (CA INDEX NAME)

RN 688357-11-1 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,3-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-12-2 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-5-[(4-methylphenyl)thio]-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-13-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(phenylthio)- (CA INDEX NAME)

RN 688357-14-4 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-15-5 CAPLUS

CN Pyrido[4,3-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 794535-37-8 CAPLUS

CN Pyrido[1,2-a]indole-9-acetic acid, 10-[(4-chlorophenyl)thio]-3-fluoro-6,7,8,9-tetrahydro-1-(1-methylethyl)-, (9R)- (CA INDEX NAME)

Absolute stereochemistry.

L13 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN GI

- Title compds. [I; Q = (R1)3A[C(Ra)2]xCRb(NR2R3)(CHRc)y; A = aryl, heteroaryl; B = atoms to form Ph, thienyl, cyclohexenyl ring; R1 = H, halo, OH, CO2H, cyano, NH2, CORe, aminoalkyl, CONH2, (substituted) Ph, heteroaryl, etc.; Re = (substituted) alkyl, Ph; Ra, Rb, RC = H, alkyl, haloalkyl; R2, R3 = H, alkyl, haloalkyl; R4 = H, halo, (substituted) alkyl, aryl, heteroaryl, heterocyclyl, etc.; 1 of x, y = 0, the other = 1], were prepared Thus, N-(tertbutoxycarbonyl)-3-(2-naphthyl)-L-alanine in CH2Cl2 at -10° was treated with DCC, HOBT, and Et 2-aminobenzoate followed by stirring for 12-24 h to give a residue which was treated with KOH in THF/MeOH/H2O and then with CF3CO2H in CH2Cl2 to give title compound (II). I in the functional in vitro GTP γ S binding assay showed EC50 values of about 1-100 μ M.
- AN 2007:728973 CAPLUS Full-text
- DN 147:143658
- TI Preparation of (hetero)aryl amino acid amides as niacin receptor agonists for treatment of atherosclerosis, dyslipidemia, diabetes, and metabolic syndrome.
- IN Imbriglio, Jason; Colletti, Steven L.; Tata, James R.; Beresis, Richard T.; Marley, Daria; Raghavan, Subharekha; Schmidt, Darby Rye; Lins, Ashley Rouse; Smenton, Abigail L.; Chen, Weichun; Shen, Hong; Ding, Fa-Xiang; Bodner, Rena
- PA Merck & Co., Inc., USA
- SO PCT Int. Appl., 78pp. CODEN: PIXXD2
- DT Patent
- LA English

FAN.CNT 1

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| WO 2007 | | | | | | | | | | | | | | 20 | 0061 | 220 |
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| | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, |
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| | KP, | KR, | KΖ, | LA, | LC, | LK, | LR, | LS, | LT, | LU, | LV, | LY, | MA, | MD, | MG, | MK, |
| | MN, | MW, | MX, | MY, | MZ, | NA, | NG, | NI, | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, |
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| RW: | ΑT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FΙ, | FR, | GB, | GR, | HU, | IE, |
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| ryrıdol | 688356-71-0 CAPLUS Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9- | | | | | | | | | | | | | | | |
| | MARPAT 688356-688357-688357-RL: THU (coarece diab 688356-68856-68856 | WO 20070757 W: AE, CN, GE, KP, MN, RS, TZ, RW: AT, IS, CF, GM, KG, MARPAT 147: 688356-71-0 688357-12-2 688357-15-5 RL: THU (Th (coadmin receptor diabetes 688356-71-0 | WO 2007075749 W: AE, AG, CN, CO, GE, GH, KP, KR, MN, MW, RS, RU, TZ, UA, RW: AT, BE, IS, IT, CF, CG, GM, KE, KG, KZ, MARPAT 147:1436 688356-71-0 688 688357-12-2 688 688357-12-2 688 688357-15-5 794 RL: THU (Therap (coadministr receptor ago diabetes, an 688356-71-0 CA | WO 2007075749 W: AE, AG, AL, CN, CO, CR, GE, GH, GM, KP, KR, KZ, MN, MW, MX, RS, RU, SC, TZ, UA, UG, RW: AT, BE, BG, IS, IT, LT, CF, CG, CI, GM, KE, LS, KG, KZ, MD, MARPAT 147:143658 688356-71-0 688356- 688357-09-7 688357- 688357-12-2 688357- 688357-15-5 794535- RL: THU (Therapeuti (coadministratio receptor agonist diabetes, and me 688356-71-0 CAPLUS | WO 2007075749 A2 W: AE, AG, AL, AM, CN, CO, CR, CU, GE, GH, GM, GT, KP, KR, KZ, LA, MN, MW, MX, MY, RS, RU, SC, SD, TZ, UA, UG, US, RW: AT, BE, BG, CH, IS, IT, LT, LU, CF, CG, CI, CM, GM, KE, LS, MW, KG, KZ, MD, RU, MARPAT 147:143658 688356-71-0 688356-89-0 688357-09-7 688357-10-0 688357-12-2 688357-13-3 688357-15-5 794535-37-8 RL: THU (Therapeutic use (coadministration; pureceptor agonists for diabetes, and metabole 688356-71-0 CAPLUS | WO 2007075749 W: AE, AG, AL, AM, AT, CN, CO, CR, CU, CZ, GE, GH, GM, GT, HN, KP, KR, KZ, LA, LC, MN, MW, MX, MY, MZ, RS, RU, SC, SD, SE, TZ, UA, UG, US, UZ, RW: AT, BE, BG, CH, CY, IS, IT, LT, LU, LV, CF, CG, CI, CM, GA, GM, KE, LS, MW, MZ, KG, KZ, MD, RU, TJ, MARPAT 147:143658 688356-95-8 688357-06-4 688 688357-12-2 688357-10-0 688 688357-15-5 794535-37-8 RL: THU (Therapeutic use); (coadministration; prepareceptor agonists for tr diabetes, and metabolic 688356-71-0 CAPLUS | WO 2007075749 W: AE, AG, AL, AM, AT, AU, CN, CO, CR, CU, CZ, DE, GE, GH, GM, GT, HN, HR, KP, KR, KZ, LA, LC, LK, MN, MW, MX, MY, MZ, NA, RS, RU, SC, SD, SE, SG, TZ, UA, UG, US, UZ, VC, RW: AT, BE, BG, CH, CY, CZ, IS, IT, LT, LU, LV, MC, CF, CG, CI, CM, GA, GN, GM, KE, LS, MW, MZ, NA, KG, KZ, MD, RU, TJ, TM MARPAT 147:143658 688356-95-8 688357-06-4 688357-688357-12-2 688357-10-0 688357-688357-15-5 794535-37-8 RL: THU (Therapeutic use); BIOL (coadministration; preparatic receptor agonists for treatmed diabetes, and metabolic synd: 688356-71-0 CAPLUS | WO 2007075749 W: AE, AG, AL, AM, AT, AU, AZ, CN, CO, CR, CU, CZ, DE, DK, GE, GH, GM, GT, HN, HR, HU, KP, KR, KZ, LA, LC, LK, LR, MN, MW, MX, MY, MZ, NA, NG, RS, RU, SC, SD, SE, SG, SK, TZ, UA, UG, US, UZ, VC, VN, RW: AT, BE, BG, CH, CY, CZ, DE, IS, IT, LT, LU, LV, MC, NL, CF, CG, CI, CM, GA, GN, GQ, GM, KE, LS, MW, MZ, NA, SD, KG, KZ, MD, RU, TJ, TM MARPAT 147:143658 688356-95-8 688357-06-4 688357-08-6 688357-12-2 688357-10-0 688357-11-1 688357-12-2 688357-13-3 688357-14-4 688357-15-5 794535-37-8 RL: THU (Therapeutic use); BIOL (Bio (coadministration; preparation or receptor agonists for treatment of diabetes, and metabolic syndrome 688356-71-0 CAPLUS | WO 2007075749 W: AE, AG, AL, AM, AT, AU, AZ, BA, CN, CO, CR, CU, CZ, DE, DK, DM, GE, GH, GM, GT, HN, HR, HU, ID, KP, KR, KZ, LA, LC, LK, LR, LS, MN, MW, MX, MY, MZ, NA, NG, NI, RS, RU, SC, SD, SE, SG, SK, SL, TZ, UA, UG, US, UZ, VC, VN, ZA, RW: AT, BE, BG, CH, CY, CZ, DE, DK, IS, IT, LT, LU, LV, MC, NL, PL, CF, CG, CI, CM, GA, GN, GQ, GW, GM, KE, LS, MW, MZ, NA, SD, SL, KG, KZ, MD, RU, TJ, TM MARPAT 147:143658 688356-95-8 688357-06-4 688357-08-6 688357-09-7 688357-10-0 688357-11-1 688357-12-2 688357-13-3 688357-14-4 688357-15-5 794535-37-8 RL: THU (Therapeutic use); BIOL (Biology (coadministration; preparation of (hereeptor agonists for treatment of adiabetes, and metabolic syndrome) 688356-71-0 CAPLUS | WO 2007075749 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, GE, GH, GM, GT, HN, HR, HU, ID, IL, KP, KR, KZ, LA, LC, LK, LR, LS, LT, MN, MW, MX, MY, MZ, NA, NG, NI, NO, RS, RU, SC, SD, SE, SG, SK, SL, SM, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, IS, IT, LT, LU, LV, MC, NL, PL, PT, CF, CG, CI, CM, GA, GN, GQ, GW, ML, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, KG, KZ, MD, RU, TJ, TM WS 2 MARPAT 147:143658 688356-91-0 688357-06-4 688357-08-6 688357-09-7 688357-10-0 688357-11-1 688357-12-2 688357-13-3 688357-14-4 688357-15-5 794535-37-8 RL: THU (Therapeutic use); BIOL (Biological (coadministration; preparation of (heterate) to the coadministration of the coadministration; preparation of coadministration; preparation of diabetes, and metabolic syndrome) 688356-71-0 CAPLUS | WO 2007075749 A2 20070705 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, KG, KZ, MD, RU, TJ, TM WS 2005- MARPAT 147:143658 688356-95-8 688357-06-4 688357-08-6 688357-12-2 688357-10-0 688357-11-1 688357-15-5 794535-37-8 RL: THU (Therapeutic use); BIOL (Biological studies of the content of the color of | WO 2007075749 A2 20070705 WO 2006-US48 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, KG, KZ, MD, RU, TJ, TM WARPAT 147:143658 688356-71-0 688356-89-0 688357-08-6 688357-12-2 688357-13-3 688357-11-1 688357-12-2 688357-13-3 688357-14-4 688357-15-5 794535-37-8 RL: THU (Therapeutic use); BIOL (Biological study); (coadministration; preparation of (hetero)aryl arreceptor agonists for treatment of atheroscleros diabetes, and metabolic syndrome) 688356-71-0 CAPLUS | WO 2007075749 A2 20070705 WO 2006-US48535 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, KG, KZ, MD, RU, TJ, TM WS 2005-751877P MARPAT 147:143658 683356-71-0 688356-89-0 688357-08-6 683357-09-7 688357-10-0 688357-11-1 683357-12-2 688357-13-3 688357-11-1 683357-15-5 794535-37-8 RL: THU (Therapeutic use); BIOL (Biological study); USE: (coadministration; preparation of (hetero)aryl amino receptor agonists for treatment of atherosclerosis, diabetes, and metabolic syndrome) 688356-71-0 CAPLUS | WO 2007075749 A2 20070705 WO 2006-US48535 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, KG, KZ, MD, RU, TJ, TM WARPAT 147:143658 688356-71-0 688357-06-4 688357-08-6 688357-09-7 688357-13-3 688357-11-1 688357-12-2 688357-13-3 688357-14-4 688357-15-5 794535-37-8 RL: THU (Therapeutic use); BIOL (Biological study); USES (Ustable tes), and metabolic syndrome) 688356-71-0 CAPLUS | WO 2007075749 A2 20070705 WO 2006-US48535 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, KG, KZ, MD, RU, TJ, TM WS 2005-751877P MARPAT 147:143658 688356-91-8 688357-06-4 688357-08-6 688357-12-2 688357-13-3 688357-14-4 688357-15-5 794535-37-8 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (coadministration; preparation of (hetero)aryl amino acid am receptor agonists for treatment of atherosclerosis, dyslipide diabetes, and metabolic syndrome) 688356-71-0 CAPLUS | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, KG, KZ, MD, RU, TJ, TM WS 2005-751877P P 20051: MARPAT 147:143658 688357-10-0 688356-89-0 688357-08-6 688357-12-2 688357-13-3 688357-14-4 688357-15-5 794535-37-8 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (coadministration; preparation of (hetero)aryl amino acid amides receptor agonists for treatment of atherosclerosis, dyslipidemia diabetes, and metabolic syndrome) 688356-71-0 CAPLUS |

RN 688356-89-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylthio)- (CA INDEX NAME)

RN 688356-90-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688356-95-8 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-bromophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-06-4 CAPLUS

CN Pyrido[3,4-b]indolizine-9-acetic acid, 10-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-1-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-08-6 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4- (methylsulfonyl)-5-[[4-(trifluoromethyl)phenyl]thio]- (CA INDEX NAME)

RN 688357-09-7 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2-chloro-4-fluorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-10-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4- (methylsulfonyl)-5-(2-naphthalenylthio)- (CA INDEX NAME)

RN 688357-11-1 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,3-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-12-2 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-5-[(4-methylphenyl)thio]-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-13-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(phenylthio)- (CA INDEX NAME)

RN 688357-14-4 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-15-5 CAPLUS

CN Pyrido[4,3-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 794535-37-8 CAPLUS

CN Pyrido[1,2-a]indole-9-acetic acid, 10-[(4-chlorophenyl)thio]-3-fluoro-6,7,8,9-tetrahydro-1-(1-methylethyl)-, (9R)- (CA INDEX NAME)

Absolute stereochemistry.

L13 ANSWER 4 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN GI

$$(R^1)3A$$
 Y
 Z
 HO
 $(R^3)2$
 I
 CO_2H
 CO_2H
 II

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AΒ
     Title compds. [I; 1-3 of W, X, Z = heteroatoms, the other = C; Y = C, N; 0-1
     of W, X, Z = O, S, the remainder of W, X, Z = C, N; ring containing W, X, Y, Z = C
     is aromatic; A = 9-10 membered aryl, 8-10 membered heteroaryl, partially
     aromatic heterocyclyl; R1 = H, OH, halo, cyano, (substituted) alkyl, alkenyl,
     alkynyl, etc.; R2 = H, (substituted) alkyl, alkenyl; R3 = H, halo, Me,
     halomethyl; dotted lines = optional double bonds, either both present or both
     absent], were prepared Thus, title compound (II) was prepared from 4-bromo-3-
     methylthiophene-2-carboxylic acid, 6-hydroxy-2-naphthylboronic acid, and
     anthranilic acid. In a 3H-nicotinic acid competition binding assay, I showed
     IC50's of about 10 nM-25 \muM.
    2007:351935 CAPLUS Full-text
ΑN
    146:379811
DN
    Preparation of heterocyclylcarbonylaminobenzoic acids as niacin receptor
ΤI
    Colletti, Steven L.; Imbriglio, Jason E.; Beresis, Richard Thomas; Frie,
ΙN
    Jessica Leslie
PΑ
    Merck & Co., Inc., USA
SO
    PCT Int. Appl., 54pp.
    CODEN: PIXXD2
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    Patent
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    English
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    WO 2007035478
                       A2 20070329
                                          WO 2006-US36023
                                                                  20060915
    WO 2007035478
                        A3 20071122
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            GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
            KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA
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    AU 2006292559
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                                           AU 2006-292559
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                                                             P 20050920
                                           US 2005-718622P
                                                             W 20060915
                                           WO 2006-US36023
    MARPAT 146:379811
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    688356-71-0 688356-89-0 688356-90-3
    688356-95-8 688357-06-4 688357-08-6
    688357-09-7 688357-10-0 688357-11-1
    688357-12-2 688357-13-3 688357-14-4
    688357-15-5 794535-37-8
    RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (coadministration; preparation of heterocyclylcarbonylaminobenzoic acids as
       niacin receptor agonists)
    688356-71-0 CAPLUS
RN
    Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-
CN
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tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688356-89-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylthio)- (CA INDEX NAME)

RN 688356-90-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688356-95-8 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-bromophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-06-4 CAPLUS

CN Pyrido[3,4-b]indolizine-9-acetic acid, 10-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-1-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-08-6 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4- (methylsulfonyl)-5-[[4-(trifluoromethyl)phenyl]thio]- (CA INDEX NAME)

RN 688357-09-7 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2-chloro-4-fluorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-10-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(2-naphthalenylthio)- (CA INDEX NAME)

RN 688357-11-1 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,3-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-12-2 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-5-[(4-methylphenyl)thio]-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-13-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(phenylthio)- (CA INDEX NAME)

RN 688357-14-4 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-15-5 CAPLUS

CN Pyrido[4,3-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 794535-37-8 CAPLUS

CN Pyrido[1,2-a]indole-9-acetic acid, 10-[(4-chlorophenyl)thio]-3-fluoro-6,7,8,9-tetrahydro-1-(1-methylethyl)-, (9R)- (CA INDEX NAME)

Absolute stereochemistry.

L13 ANSWER 5 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN $_{
m GI}$

Title compds. I [wherein X = C or N; D = bond, O, CH2, CH2CH2 or CH2CH2CH2; B = (hetero)aryl; B' = H or absent; B and B' can be taken together to form a spiro ring while D = bond; Ra = H, halo, OH, etc.; Rb = H, halo, alkyl, etc.; Rc = COOH or tetrazol-5-yl; R4 = H, halo or (halo)methyl, with limitations] or pharmaceutically acceptable salts and solvates were prepared as niacin receptor agonists. Solid-phase synthesis of I such as II on Wang resin was disclosed. The invented compds. generally have EC50 in the range of 1 μ M to 100 μ M for niacin receptor in the binding assay. I are useful for the treatment of atherosclerosis, dyslipidemia, diabetes and other conditions.

AN 2007:259556 CAPLUS Full-text

DN 146:316951

TI Preparation of piperazinecarboxamides, diazepanecarboxamides and their analogs as niacin receptor agonists for the treatment of atherosclerosis, dyslipidemia and diabetes

IN Colletti, Steven L.; Shen, Hong; Tata, James R.; Szymonifka, Michael J.

PA Merck & Co., Inc., USA

SO PCT Int. Appl., 55pp. CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| 11114 | PATENT NO. | | | | KIND DATE | | | | APPLICATION NO. | | | | | | | DATE | | | |
|-------|------------|------|------|--------|-----------|-----|-----|------|-----------------|------|-----------------|-------|-----------|-----|------------|------|------|---------|--|
| ΡI | WO | 2007 | 0275 | 32 | | A2 | | | | , | WO 2 | | US33. | 304 | | 2 | 0060 | 825 | |
| | | W: | ΑE, | AG, | AL, | AM, | ΑT, | ΑU, | AZ, | BA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, | |
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| | | | KR, | KΖ, | LA, | LC, | LK, | LR, | LS, | LT, | LU, | LV, | LY, | MA, | MD, | MG, | MK, | MN, | |
| | | | MW, | MX, | MY, | MZ, | NA, | NG, | NΙ, | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RS, | |
| | | | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SM, | SV, | SY, | ТJ, | TM, | TN, | TR, | TT, | TZ, | |
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| | | | CF, | CG, | CI, | CM, | GΑ, | GN, | GQ, | GW, | ML , | MR, | ΝE, | SN, | TD, | ΤG, | BW, | GH, | |
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| | | | KG, | KΖ, | MD, | RU, | ТJ, | TM | | | | | | | | | | | |
| | | | | | | | | | | | US 2 | 005- | 7122 | 75P | | P 2 | 0050 | 829 | |
| | AU | 2006 | 2850 | 64 | | A1 | | 2007 | 0308 | | | 006- | | | | _ | 0060 | | |
| | | | | | | | | | | | US 2 | 005- | 7122 | 75P | | P 2 | 0050 | 829 | |
| | | | | | | | | | • | WO 2 | 006- | US33. | 304 | 1 | W 20060825 | | | | |
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| | | | | | | | | | | , | WO 2 | 006- | US33. | 304 | 1 | W 2 | 0060 | 825 | |

OS MARPAT 146:316951

IT 688356-71-0 688356-89-0 688356-90-3 688356-95-8 688357-06-4 688357-08-6 688357-09-7 688357-10-0 688357-11-1 688357-12-2 688357-13-3 688357-14-4 688357-15-5 794535-37-8

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (co-drug; preparation of piperazinecarboxamides, diazepanecarboxamides and their analogs as niacin receptor agonists for treatment of atherosclerosis, dyslipidemia and diabetes)

RN 688356-71-0 CAPLUS

CN

Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688356-89-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylthio)- (CA INDEX NAME)

RN 688356-90-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688356-95-8 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-bromophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-06-4 CAPLUS

CN Pyrido[3,4-b]indolizine-9-acetic acid, 10-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-1-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-08-6 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4- (methylsulfonyl)-5-[[4-(trifluoromethyl)phenyl]thio]- (CA INDEX NAME)

RN 688357-09-7 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2-chloro-4-fluorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-10-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(2-naphthalenylthio)- (CA INDEX NAME)

RN 688357-11-1 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,3-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-12-2 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-5-[(4-methylphenyl)thio]-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-13-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(phenylthio)- (CA INDEX NAME)

RN 688357-14-4 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-15-5 CAPLUS

CN Pyrido[4,3-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 794535-37-8 CAPLUS

CN Pyrido[1,2-a]indole-9-acetic acid, 10-[(4-chlorophenyl)thio]-3-fluoro-6,7,8,9-tetrahydro-1-(1-methylethyl)-, (9R)- (CA INDEX NAME)

Absolute stereochemistry.

L13 ANSWER 6 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN GI

$$\begin{bmatrix} R^{1} \end{bmatrix}_{3} \xrightarrow{A} \begin{bmatrix} 0 & 1 & X \\ A & 1 & 1 \\ R^{2} & R^{3} \end{bmatrix}_{NH} \begin{bmatrix} X & 1 \\ A & 1 \\ R^{4} \end{bmatrix}_{2}$$

AΒ Title compds. I [X = CH2, O, S, etc.; a, b = 1-3 such as a + b = 2-4; ring A =aryl, heteroaryl, partially aromatic heterocyclic group, said heteroaryl and partially aromatic heterocyclic group containing at least one heteroatom selected from O, S, SO, etc., and optionally containing 1 other heteroatom selected from O and S, and optionally containing 1-3 addnl. N atoms, with up to 5 heteroatoms being present; R2, R3 = H, alkyl, haloalkyl, etc.; n = 1-5; R4 = H, halo, R6; R6 = alkyl optionally substituted with 1-3 groups, 0-3 of which are halo, and 0-1 of which are selected from the group consisting of 0alkyl, hydroxy, amino, etc.; R5 = -CO2H, tetrazol-5-yl, etc.; R1 = H, halo, hydroxy, etc.], pharmaceutically acceptable salts or solvates thereof were prepared For example, reaction of 3-(naphthalen-2-yl)propionic acid with methanesulfonyl chloride followed by in-situ treatment with Me 2aminocyclohex-2-ene-1-carboxylate and hydrolysis using NaOH afforded compound II. The invented compds. generally have an IC50 in the 3H-nicotinic acid competition binding assays within the range of 1 nM to about 25 μM , and have an EC50 in the functional in vitro GTPyS binding assays within the range of about $1-100 \mu M$.

```
2006:1356948 CAPLUS Full-text
AN
DN
    146:100362
ΤI
    Preparation of 2-acylaminocycloalkenecarboxylic acids derivatives as
    niacin receptor agonists
    Raghavan, Subharekha; Colletti, Steven L.; Ding, Fa-Xiang; Shen, Hong;
IN
    Tata, James R.; Lins, Ashley Rouse; Smenton, Abigail Lee; Chen, Weichun;
    Schmidt, Darby Rye; Tria, George Scott
    USA
PΑ
SO
    U.S. Pat. Appl. Publ., 69pp.
    CODEN: USXXCO
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    English
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                                          APPLICATION NO.
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                                           AU 2006-261839
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    AU 2006261839
                                           US 2005-694711P
                                                             P 20050628
                                           WO 2006-US24740 W 20060626
                                           CA 2006-2611552
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                                           US 2005-694711P P 20050628
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                                                             W 20060626
                                           WO 2006-US24740
    KR 2008019653
                         Α
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US 2005-694711P P 20050628
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    688356-95-8 688357-06-4 688357-08-6
    688357-09-7 688357-10-0 688357-11-1
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    688357-15-5 794535-37-8
    RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (medicaments with; preparation of 2-acylaminocycloalkenecarboxylic acids as
       niacin receptor agonists)
    688356-71-0 CAPLUS
RN
    Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-
CN
    tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)
```

RN 688356-89-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylthio)- (CA INDEX NAME)

RN 688356-90-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688356-95-8 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-bromophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-06-4 CAPLUS

CN Pyrido[3,4-b]indolizine-9-acetic acid, 10-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-1-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-08-6 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4- (methylsulfonyl)-5-[[4-(trifluoromethyl)phenyl]thio]- (CA INDEX NAME)

RN 688357-09-7 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2-chloro-4-fluorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-10-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(2-naphthalenylthio)- (CA INDEX NAME)

RN 688357-11-1 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,3-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-12-2 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-5-[(4-methylphenyl)thio]-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-13-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(phenylthio)- (CA INDEX NAME)

RN 688357-14-4 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-15-5 CAPLUS

CN Pyrido[4,3-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 794535-37-8 CAPLUS

CN Pyrido[1,2-a]indole-9-acetic acid, 10-[(4-chlorophenyl)thio]-3-fluoro-6,7,8,9-tetrahydro-1-(1-methylethyl)-, (9R)- (CA INDEX NAME)

Absolute stereochemistry.

L13 ANSWER 7 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN $\mbox{\rm GI}$

$$\mathbb{R}^{2}$$

$$\mathbb{R}^{1}$$

$$\mathbb{N}$$

Title compds. represented by the formula I [wherein R1 = (un)substituted cyclohexyl, Ph or heteroaryl; R2 = tetrazol-5-yl, 2,4-dioxo-oxazol-5-yl or CO2R; R = H or alkyl; n = 1 or 2; and pharmaceutically acceptable salts or solvates thereof] were prepared as Niacin receptor agonists. For example, II was provided in a multi-step synthesis starting from 3-ethoxy cyclopentenone. Certain I an IC50 in the niacin binding assay within the range of about 0.010-50 μM , and have an EC50 in the functional GTPyS binding assay within the range of about 0.010-100 1M. Thus, I and their pharmaceutical compns. are useful as Niacin receptor agonists for the treatment of dyslipidemias (no data).

- AN 2006:1124674 CAPLUS Full-text
- DN 145:455008
- TI Preparation of pyrazole derivatives as Niacin receptor agonists
- IN Imbriglio, Jason E.; Colletti, Steven L.; Tata, James R.; Liang, Rui; Raghavan, Subharekha; Schmidt, Darby R.; Smenton, Abigail R.; Chan, Sook Yee
- PA Merck & Co., Inc., USA
- SO PCT Int. Appl., 83pp.

CODEN: PIXXD2

DT Patent

LA English

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OS MARPAT 145:455008

RN

IT 688356-71-0P 688356-89-0P 688356-90-3P 688356-95-8P 688357-06-4P 688357-08-6P 688357-09-7P 688357-10-0P 688357-11-1P 688357-12-2P 688357-13-3P 688357-14-4P 688357-15-5P 794535-37-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyrazole derivs. as Niacin receptor agonists) 688356-71-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688356-89-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylthio)- (CA INDEX NAME)

RN 688356-90-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688356-95-8 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-bromophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-06-4 CAPLUS

CN Pyrido[3,4-b]indolizine-9-acetic acid, 10-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-1-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-08-6 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4- (methylsulfonyl)-5-[[4-(trifluoromethyl)phenyl]thio]- (CA INDEX NAME)

RN 688357-09-7 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2-chloro-4-fluorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-10-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(2-naphthalenylthio)- (CA INDEX NAME)

RN 688357-11-1 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,3-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-12-2 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-5-[(4-methylphenyl)thio]-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-13-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(phenylthio)- (CA INDEX NAME)

RN 688357-14-4 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-15-5 CAPLUS

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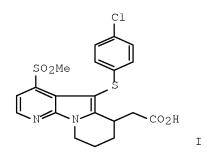
RN 794535-37-8 CAPLUS

CN Pyrido[1,2-a]indole-9-acetic acid, 10-[(4-chlorophenyl)thio]-3-fluoro-6,7,8,9-tetrahydro-1-(1-methylethyl)-, (9R)- (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 8 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN GI



AB A method of treating atherosclerosis is disclosed wherein nicotinic acid or another nicotinic acid receptor agonist is administered to the patient in combination with a DP (prostaglandin D2) receptor antagonist. E.g, I was prepared by a series of reactions starting from 4-chloronicotinaldehyde. The compds. prepared function as selective DP antagonists and demonstrate an affinity for DP that is at least about 10 times higher than the affinity for CRTH2 receptors.

AN 2006:844718 CAPLUS Full-text

DN 145:271745

TI Preparation of pyridoindolizine and pyridoindole derivatives for treating atherosclerosis, dyslipidemias and related conditions

IN Fitzpatrick, Shaun; Seiler, Christian; Hardy, Ian; Waters, M., Gerard; Lai, Eseng

PA Merck & Co., Inc., USA

SO PCT Int. Appl., 66pp. CODEN: PIXXD2

DT Patent

LA English

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FAN.CNT 1
     PATENT NO.
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    WO 2006089309
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                               20060824
                                           WO 2006-US6951
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РΤ
     WO 2006089309
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             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,
             KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX,
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                                            US 2005-654703P P 20050217
WO 2006-US6951 W 20060215
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WO 2006-US6951 W 20060215
ΙT
     688356-71-0P 688356-89-0P 688356-90-3P
     688356-95-8P 688357-06-4P 688357-08-6P
     688357-09-7P 688357-10-0P 688357-11-1P
     688357-12-2P 688357-13-3P 688357-14-4P
     688357-15-5P 794535-37-8P 887146-39-6P
     887146-40-9P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (preparation of pyridoindolizine and pyridoindole derivs for treating
        atherosclerosis, dyslipidemias and related conditions)
RN
     688356-71-0 CAPLUS
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CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688356-89-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylthio)- (CA INDEX NAME)

RN 688356-90-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688356-95-8 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-bromophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-06-4 CAPLUS

CN Pyrido[3,4-b]indolizine-9-acetic acid, 10-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-1-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-08-6 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4- (methylsulfonyl)-5-[[4-(trifluoromethyl)phenyl]thio]- (CA INDEX NAME)

RN 688357-09-7 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2-chloro-4-fluorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-10-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(2-naphthalenylthio)- (CA INDEX NAME)

RN 688357-11-1 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,3-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-12-2 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-5-[(4-methylphenyl)thio]-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-13-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(phenylthio)- (CA INDEX NAME)

RN 688357-14-4 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-15-5 CAPLUS

CN Pyrido[4,3-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 794535-37-8 CAPLUS

CN Pyrido[1,2-a]indole-9-acetic acid, 10-[(4-chlorophenyl)thio]-3-fluoro-6,7,8,9-tetrahydro-1-(1-methylethyl)-, (9R)- (CA INDEX NAME)

Absolute stereochemistry.

RN 887146-39-6 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)-, (6S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 887146-40-9 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)-, (6R)- (CA INDEX NAME)

Absolute stereochemistry.

IT 688356-87-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of pyridoindolizine and pyridoindole derivs for treating atherosclerosis, dyslipidemias and related conditions)

RN 688356-87-8 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)-, ethyl ester (CA INDEX NAME)

$$\mathbb{R}^{3}$$
 \mathbb{R}^{2}
 \mathbb{R}^{1}
 \mathbb{R}^{2}
 \mathbb{R}^{1}
 \mathbb{R}^{5}
 \mathbb{R}^{6}
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 \mathbb{R}^{1}

AB The invention relates to certain fused pyrazole derivs. of formula I, and pharmaceutically acceptable salts thereof, which exhibit useful pharmacol. properties, for example, as agonists for the RUP25 receptor. Compds. of formula I wherein X is N, and Z is CR7, or X is CR7 and Z is N; one dotted lines are single and double bonds such that the ring containing X and Z is a pyrazole ring; R1 - R6 are independently H, C1-6 acyl(oxy), C2-6 alkenyl, C1-6 alkoxy, C1-6 alkyl(amino), C1-6 alkyl(thio)carboxamide, C2-6 alkynyl, etc.; R7 is carbo-C1-6 alkoxy, carboxy, or tetrazol-5-yl; and their pharmaceutically acceptable salts, hydrates, or solvates thereof are claimed. Also provided by the invention are pharmaceutical compns. containing compds. of the invention, and methods of using the compds. and compns. of the invention in the treatment of metabolic-related disorders, including dyslipidemia, atherosclerosis, coronary heart disease, insulin resistance, type 2 diabetes, Syndrome-X and the like. In addition, the invention also provides for the use of the compds. of the invention in combination with other active agents such as those belonging to the class of α -glucosidase inhibitors, aldose reductase inhibitors, biguanides, HMG-CoA reductase inhibitors, squalene synthesis inhibitors, fibrates, LDL catabolism enhancers, angiotensin converting enzyme (ACE) inhibitors, insulin secretion enhancers, DP receptor antagonists, and the like. Example compound II was prepared by cyclization of (R)-2-(3butenyl)oxirane; the resulting bicyclo[3.2.1]hexan-2-ol underwent oxidation of give bicyclo[3.2.1]hexane-2-one, which underwent cyclization with di-Et oxalate and hydrazine to give 1a, 2, 5, 5a-tetrahydro-1H-2, 3diazacyclopropa[a]pentalene-4-carboxylic acid Et ester, which underwent amidation with ammonium hydroxide to give the corresponding amide, which benzylation with benzyl bromide followed by dehydration to give 2-benzyl-1a, 2, 5, 5a-tetrahydro-1H-2, 3-diazacyclopropa[a]pentalene-4- carbonitrile, which reacted with sodium azide to give 2-Benzyl-4-(2H- tetrazol-5-yl)-1a,2,5,5atetrahydro-2,3-diazacyclopropa[a]pentalene, which underwent debenzylation to give example compound II. All the invention compds. were evaluated for their antihyperglycemic activity, and 35S-GTPyS, human RUP25, and 3H-nicotinic acid receptor binding affinities. Certain compds. were determined to have an EC50 value in the cAMP whole cell method of about 25 μM or less. From the in vitro GTP γ S binding assay, it was determined that tested compds. exhibited EC50 values in the range of about $1-100~\mu\text{M}$, and the best compds. showed an EC50 value of less than about 1 μM . Certain tested compds. have an EC50 in the 3Hnicotinic acid binding competition assay, in the range of 1 to 100 μM , and the most favorable compds. exhibited an EC50 value of less than about 1 μM .

AN 2006:635044 CAPLUS <u>Full-text</u>

DN 145:103670

TI Fused pyrazole derivatives and their preparation, pharmaceutical compositions, and methods for treatment of metabolic-related disorders

IN Boatman, Douglas P.; Schrader, Thomas O.; Semple, Graeme; Skinner, Philip

J.; Jung, Jae-Kyu

PA Arena Pharmaceuticals, Inc., USA

SO PCT Int. Appl., 170 pp.

CODEN: PIXXD2

DT Patent LA English FAN.CNT 1

| FAN. | | KIND DATE | | | | | API | PLICAT | DATE | | | | | | | | | |
|------|------|------------------------------|-------|------------|-----|----------|-------------|------------------|-----------------|-----------------|------|----------------|--------|------------|--------------------------|----------|----------------|---------|
| PI | | O 2006069242 O 2006069242 | | | | A2 A3 | | 2006 2006 | 0629 | WO 2005-US46599 | | | | | | 20051222 | | |
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| | | | MZ, | NA, | NG, | NΙ, | NO, | NΖ, | OM, | PG, | Ρŀ | H, PL, | PT, | RO, | RU, | SC, | SD, | SE, |
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| | | | CF, | CG, | CI, | CM, | GΑ, | GN, | GQ, | GW, | MI | L, MR, | ΝE, | SN, | TD, | ΤG, | BW, | GH, |
| | | | GM, | KΕ, | LS, | MW, | MZ, | NA, | SD, | SL, | SZ | Z, TZ, | UG, | ZM, | ZW, | ΑM, | ΑZ, | BY, |
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| | | | | | | | | | | | | 2004- | | | | | 0041 | |
| | | | | | | | | | | | | 2005- | | | | | 0050 | |
| | AU | 2005 | 3191 | 21 | | A1 | | 2006 | 0629 | | | 2005- | | | | | 0051 | |
| | | | | | | | | | US 2004-638668P | | | | | | P 20041223 P 20050429 | | | |
| | | | | | | | | | | | | 2005- | | | | | | |
| | O 7 | 2589648 | | | | 73 1 | | 2006 | 0.00 | | | 2005- | | | | | 0051 | |
| | CA | 2589 | 648 | | | A1 | | 2006 | 0629 | | | 2005- | | | | | 0051 | |
| | | | | | | | | | | | | 2004- | | | | | 0041 | |
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| | IIC | 2006 | 0205 | 955 | | A1 | | 2006 | NG1/I | | | 2005- | | | | | $0051 \\ 0051$ | |
| | | S 20060205955 S 7241792 | | | | B2 | | 2007 | | | US | 2005 | -3137 | <i>J J</i> | | 4 | 0031 | <i></i> |
| | OB | /211 | 1 7 2 | | | בע | | 2007 | 0 / 1 0 | | IIS | 2004- | -6386 | 68P | | P 2 | 0041 | 223 |
| | | | | | | | | | | | | 2005- | | | | | 0050 | |
| | EP | 1831 | 178 | | | A2 | A2 20070912 | | | | | 2005- | | | | | 0051 | |
| | | R: | | BE, | BG, | | | | | | | E, ES, | | | GB, | | | |
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| | | | | | | | | | | | WO | 2005- | -US46 | 599 | , | W 2 | 0051 | 222 |
| | CN | 1010 | 8776 | 5 | | Α | | 2007 | 1212 | | CN | 2005- | -8004 | 4454 | | 2 | 0051 | 222 |
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| | | | | | | | | | | | | 2005- | | | | | 0050 | |
| | | | | | | | | | | | | 2005- | | | , | | 0051 | |
| | US | 2007 | 0073 | 062 | | A1 | | 2007 | 0329 | | | 2006- | | | | | 0061 | |
| | | | | | | | | | | | | 2004- | | | | | 0041 | |
| | | | | | | | | | | | | 2005- | | | | | 0050 | |
| | | 0007 | | 202 | | - | | 0007 | 0017 | | | 2005- | | | | A1 2 | | |
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| | | | | | | | | | | | | 2004- | | | | | 0041 | |
| | NT/ | 2007 | 0027 | <i>c c</i> | | 77. | | 2007 | 0001 | | | 2005- | | 599 | | | 0051 | |
| | МО | 2007 | UU3 / | 00 | | A | | 2007 | UYZI | | | 2007- | | 6 O D | | | 0070 0041 | |
| | | | | | | | | | | | | 2004- | | | | | | |
| | | | | | | | | | | | | 2005- 2005- | | | | | 0050 0051 | |
| | KD | 2007 | USSS | N 8 | | A | | 2007 | N 2 2 0 | | | 2003- | | | | | 0031 | |
| | 1/1/ | 2007 | 0000 | 00 | | Λ | | 2001 | 0029 | | 1/1/ | 2007- | , 10 / | <i>J</i> / | | | 00/0 | , |

US 2004-638668P P 20041223 US 2005-676521P P 20050429 WO 2005-US46599 W 20051222

OS MARPAT 145:103670

IT 688356-71-0P 688356-89-0P 688356-90-3P 688356-95-8P 688357-06-4P 688357-08-6P 688357-09-7P 688357-10-0P 688357-11-1P 688357-12-2P 688357-13-3P 688357-14-4P 688357-15-5P 794535-37-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of fused pyrazole derivs. and methods for treatment of metabolic-related disorders)

RN 688356-71-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688356-89-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylthio)- (CA INDEX NAME)

RN 688356-90-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688356-95-8 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-bromophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-06-4 CAPLUS

CN Pyrido[3,4-b]indolizine-9-acetic acid, 10-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-1-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-08-6 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4- (methylsulfonyl)-5-[[4-(trifluoromethyl)phenyl]thio]- (CA INDEX NAME)

RN 688357-09-7 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2-chloro-4-fluorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-10-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(2-naphthalenylthio)- (CA INDEX NAME)

RN 688357-11-1 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,3-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-12-2 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-5-[(4-methylphenyl)thio]-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-13-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(phenylthio)- (CA INDEX NAME)

RN 688357-14-4 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-15-5 CAPLUS

CN Pyrido[4,3-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 794535-37-8 CAPLUS

CN Pyrido[1,2-a]indole-9-acetic acid, 10-[(4-chlorophenyl)thio]-3-fluoro-6,7,8,9-tetrahydro-1-(1-methylethyl)-, (9R)- (CA INDEX NAME)

Absolute stereochemistry.

L13 ANSWER 10 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN GI

$$[R^{2}]_{1}?$$

$$X^{4} = X^{5}$$

$$X^{2} = X^{1}$$

$$X^{7} = X^{6}$$

$$X^{2} = X^{1}$$

$$X^{2} = X^{1}$$

$$X^{3} = X^{1}$$

$$X^{2} = X^{1}$$

$$X^{2} = X^{1}$$

$$X^{3} = X^{1}$$

$$X^{2} = X^{1}$$

$$X^{3} = X^{1}$$

$$X^{2} = X^{1}$$

$$X^{3} = X^{1}$$

$$X^{4} = X^{5}$$

$$X^{2} = X^{1}$$

$$X^{5} = X^{1}$$

$$X^{7} = X^{6}$$

$$X^{7} = X^{1}$$

The invention is related to biaryls I [Y = C, N; Z = C(RaRb)n; Ra, Rb = independently H, alkyl, OH, F, etc.; n = 1-5; R1 = CO2H, 1H-tetrazol-5-yl, CONHSO2Rc; Rc = (un)substituted alkyl, Ph; X10' = (X10)0-1; X1' = (X1)0-1' X1-X10 = C, or a heteroatom selected from O, S, and N, with provisos; each R2 = H, F, Cl, Br, I, alkyl, heterocyclyl, etc.; or two R2 groups taken together can form a fused Ph or fused heterocycle with ring B; each R3 = H, halo, halo/alkyl, halo/alkoxy, etc.; each R4 = H, halo, Me, etc.], as well as pharmaceutically acceptable salts, solvates, as niacin receptor agonists useful for treating atherosclerosis and dyslipidemias in combination with DP antagonists. The invention is also related to the preparation of DP antagonists. Pharmaceutical compns. comprising I are also included. Thus, anthranilide II was prepared by Pd-coupling of 3-(4-iodophenyl)propionic acid with phenylboronic acid, chlorination of biaryl propionic acid (no data) with

SOC12, and amidation of acyl chloride (no data) with anthranilic acid. I have an EC50 in the functional assay in vitro GTPyS binding assay within the range of about less than 1 μM to as high as about 100 $\mu\text{M}.$ Have an IC50 in the 3Hnicotinic acid competition binding assay within the range of 1 nM to about 25 μM . Selected I do not exhibit measurable in vivo vasodilation in the murine flushing model at doses up to 100 mg/kg or 300 mg/kg in the presence of DP antagonists.

- 2006:513667 CAPLUS Full-text ΑN
- DN 145:27731
- Preparation of biaryl compounds, particularly N-ΤI (biarylpropionyl) anthranilides, as niacin receptor agonists and pyridoindolizine derivatives as DP receptor antagonists, their pharmaceutical compositions and their combination useful for treating atherosclerosis and dyslipidemias
- Colletti, Steven L.; Tata, James R.; Shen, Hong C.; Ding, Fa-Xiang; Frie, ΙN Jessica L.; Imbriglio, Jason E.; Chen, Weichun
- PΑ Merck & Co., Inc., USA
- SO PCT Int. Appl., 100 pp.

CODEN: PIXXD2

- DT Patent
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| | FAN. | CNT | glish 1 [ENT] | NO. | | | KIND DATE | | | | | APPI | JICAT | DATE | | | | | |
|---|------|------------|----------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|-------------------------------------|----------------------------|--------------------------|----------------------------|--------------------------|--------------------------|--------------------------|---------------------------|--------------------------|
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CI, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GI, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KI, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SI, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VV, VV, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, II IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BC, GR, KZ, MD, RU, TJ, TM AU 2005309737 A1 20060601 AU 2005-309737 2005111: AU 2005309737 A1 20060601 CA 2005-2587207 2005111: BP 1824812 A2 20070829 BP 2005-824876 2005111: CA 2587207 A1 20060601 CA 2005-05824876 2005111: BP 1824812 A2 20070829 BP 2005-824876 2005111: CA 2004-630281P P 2004112: WO 2005-US41962 W 2005111: CO 101061092 A 20070829 BP 2005-824876 2005111: BP 1824812 A2 20070829 BP 2005-824876 2005111: CN 101061092 A 20071024 CN 2005-80039913 2005111: WO 2005-US41962 W 2005111: | ΡΙ | | | A2 | _ | 20060601 | | WO 2005-US41962 | | | | | | | 20051118 | | | | |
| VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, II IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, B, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GI, KZ, MD, RU, TJ, TM AU 2005309737 A1 20060601 AU 2005-309737 2005111: CA 2587207 A1 20060601 AU 2005-309737 2005111: CA 2587207 A1 20060601 CA 2005-2587207 2005111: WO 2005-US41962 W 2005111: WO 2005-US41962 W 2005111: R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, II IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR WO 2005-US41962 W 2005111: CN 101061092 A 20071024 CN 2005-80039913 2005111: WO 2005-US41962 W 2005111: | | | | AE, CN, GE, KZ, MZ, | AG, CO, GH, LC, NA, | CR, GM, LK, NG, | AM, CU, HR, LR, NI, | AT, CZ, HU, LS, NO, | AU, DE, ID, LT, NZ, | AZ, DK, IL, LU, OM, | DM, IN, LV, PG, | DZ, IS, LY, PH, | EC, JP, MA, PL, | EE, KE, MD, PT, | EG, KG, MG, RO, | ES, KM, MK, RU, | FI, KN, MN, SC, | GB, KP, MW, SD, | GD, KR, MX, SE, |
| AU 2005309737 A1 20060601 AU 2005-309737 20051113 US 2004-630281P P 20041123 WO 2005-US41962 W 20051113 CA 2587207 A1 20060601 CA 2005-2587207 20051113 US 2004-630281P P 20041123 WO 2005-US41962 W 20051113 EP 1824812 A2 20070829 EP 2005-824876 20051113 R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, II IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR US 2004-630281P P 20041123 WO 2005-US41962 W 20051113 US 2004-630281P P 20041123 US 2007-CN1774 20070436 US 2004-630281P P 20041123 US 2004-630281P P 20041123 US 2004-630281P P 20041123 US 2004-630281P P 20041123 US 2007-791183 2007051 | | | RW: | VN, AT, IS, CF, GM, | YU, BE, IT, CG, KE, | ZA, BG, LT, CI, LS, | ZM, CH, LU, CM, MW, | ZW CY, LV, GA, MZ, | CZ, MC, GN, NA, | DE, NL, GQ, | DK, PL, GW, | EE, PT, ML, | ES, RO, MR, | FI, SE, NE, | FR, SI, SN, | GB, SK, TD, | GR, TR, TG, | HU, BF, BW, | IE, BJ, GH, |
| CA 2587207 A1 20060601 CA 2005-2587207 20051118 US 2004-630281P P 20041123 WO 2005-US41962 W 20051118 R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, II IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR US 2004-630281P WO 2005-US41962 WO 2005-US41962 W 20051118 US 2004-630281P P 20041123 US 2004-630281P P 20041123 US 2004-630281P P 20041123 US 2004-630281P P 20041123 | | | | | | | 0601 | - | AU 2 US 2 | 2005- 2004- | 3097 6302 | 37 81P | : | 2 P 2 | 0051 0041 | 118 123 | | | |
| EP 1824812 R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, II IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR US 2004-630281P WO 2005-US41962 CN 101061092 A 20071024 CN 2005-US41962 US 2004-630281P WO 2005-US41962 US 2004-630281P WO 2005-US41962 US 2004-630281P WO 2005-US41962 US 2004-630281P WO 2005-US41962 US 2004-630281P P 20041123 WO 2005-US41962 W 20051118 US 2004-630281P WO 2005-US41962 W 20051118 US 2004-630281P WO 2005-US41962 W 20051118 US 2004-630281P P 20041123 US 2004-630281P P 20041123 | | CA 2587207 | | | | A1 | | 2006 | 0601 | | CA 2 US 2 | 2005- 2004- | 2587 6302 | 207 81P | : | 2 P 2 | 0051 0041 | 118 123 | |
| CN 101061092 A 20071024 CN 2005-80039913 20051118 US 2004-630281P P 20041123 WO 2005-US41962 W 20051118 US 2004-630281P P 20070436 US 2004-630281P P 20041123 US 20070281969 A1 20071206 US 2007-791183 2007051 | | EP | - | AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, NL, | EP 2 EE, PL, US 2 | ES, PT, 2004- | 8248 FI, RO, 6302 | 76 FR, SE, 81P | GB, SI, | 2 GR, SK, P 2 | 0051 HU, TR 0041 | 118 IE, 123 |
| WO 2005-US41962 W 20051112 US 20070281969 A1 20071206 US 2007-791183 2007051 US 2004-630281P P 20041123 | | CN | 1 101061092 | | | A | A 2007 | | | | CN 2005-80039913 US 2004-630281P | | | | | | | 118 123 | |
| US 20070281969 A1 20071206 US 2007-791183 20070513 US 2004-630281P P 20041123 | | IN | IN 2007CN01774 | | | А | A 20070831 | | | | 00 2 | -00- | 0002 | 0 1 1 | | | 0070 0041 | 430 123 | |
| | | US | 2007 | 0281 | 969 | | A1 | | 2007 | 1206 | | US 2 US 2 | 2007- 2004- | 7911 6302 | 83 81P | : | 2 P 2 | 0070 0041 | 517 123 |

OS MARPAT 145:27731

ΙT 688356-71-0P, [5-[(4-Chlorophenyl)thio]-4-(methylsulfonyl)-6,7,8,9tetrahydropyrido[3,2-b]indolizin-6-yl]a cetic acid 688356-89-0P, [5-[(4-Chlorophenyl)sulfanyl]-4-(methylthio)-6,7,8,9-tetrahydropyrido[3,2b]indolizin-6-yl]acetic acid 688356-90-3P, [5-[(3,4-Dichlorophenyl)thio]-4-(methylsulfonyl)-6,7,8,9-tetrahydropyrido[3,2b]indolizin-6-yl]acetic acid 688356-95-8P, [5-[(4-Bromophenyl)thio]-4-(methylsulfonyl)-6,7,8,9-tetrahydropyrido[3,2b]indolizin-6-yl]acetic acid 688357-06-4P, [10-[(3,4-Dichlorophenyl)sulfanyl]-1-(methylsulfonyl)-6,7,8,9-tetrahydropyrido[3,4b]indolizin-9-yl]acetic acid 688357-08-6P, [4-(Methylsulfonyl)-5-[[4-(trifluoromethyl)phenyl]thio]-6,7,8,9-tetrahydropyrido[3,2-b]indolizin-6-yl]acetic acid 688357-09-7P, [5-[(2-Chloro-4fluorophenyl)thio]-4-(methylsulfonyl)-6,7,8,9-tetrahydropyrido[3,2b]indolizin-6-yl]acetic acid 688357-10-0P 688357-11-1P 688357-12-2P, [5-[(4-Methylphenyl)thio]-4-(methylsulfonyl)-6,7,8,9tetrahydropyrido[3,2-b]indolizin-6-yl]acetic acid 688357-13-3P, [4-(Methylsulfonyl)-5-(phenylthio)-6,7,8,9-tetrahydropyrido[3,2b]indolizin-6-yl]acetic acid 688357-14-4P 688357-15-5P , [5-[(4-Chlorophenyl)thio]-4-(methylsulfonyl)-6,7,8,9tetrahydropyrido[4,3-b]indolizin-6-yl]acetic acid RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (DP receptor antagonist; preparation of biaryl compds. as niacin receptor

(DP receptor antagonist; preparation of biaryl compds. as niacin receptor agonists and pyridoindolizine derivs. as DP receptor antagonists and their combination useful for treating atherosclerosis and dyslipidemias)

RN 688356-71-0 CAPLUS

CN

Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688356-89-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylthio)- (CA INDEX NAME)

RN 688356-90-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688356-95-8 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-bromophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-06-4 CAPLUS

CN Pyrido[3,4-b]indolizine-9-acetic acid, 10-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-1-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-08-6 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4- (methylsulfonyl)-5-[[4-(trifluoromethyl)phenyl]thio]- (CA INDEX NAME)

RN 688357-09-7 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2-chloro-4-fluorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-10-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4- (methylsulfonyl)-5-(2-naphthalenylthio)- (CA INDEX NAME)

RN 688357-11-1 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,3-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-12-2 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-5-[(4-methylphenyl)thio]-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-13-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(phenylthio)- (CA INDEX NAME)

RN 688357-14-4 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-15-5 CAPLUS

CN Pyrido[4,3-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

L13 ANSWER 11 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN GI

AB A method of treating pathol. blushing is disclosed wherein the patient is administered a DP (prostaglandin D2) receptor antagonist. E.g, I was prepared by a series of reactions starting from 4-chloronicotinaldehyde. The compds. prepared function as selective DP antagonists and demonstrate an affinity for DP that is at least about 10 times higher than the affinity for CRTH2 receptors.

AN 2006:471897 CAPLUS Full-text

DN 144:488635

TI Preparation of compounds such as pyridoindolizine and indole derivatives as prostaglandin D2 antagonists for treating pathological blushing

IN Tobert, Jonathan A.; Lai, Eseng

PA Merck & Co., Inc., USA

SO PCT Int. Appl., 40 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | | | |
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| ΡI | WO 2006052798 | A2 | 20060518 | WO 2005-US40117 | 20051107 | | | |
| | WO 2006052798 | А3 | 20070111 | | | | | |
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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,

CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM US 2004-625823P P 20041108 US 20070299122 Α1 20071227 US 2007-667346 20070508 US 2004-625823P Ρ 20041108 WO 2005-US40117 W 20051107

OS CASREACT 144:488635

IT 688356-71-0P 688356-89-0P 688356-90-3P 688356-95-8P 688357-06-4P 688357-08-6P 688357-09-7P 688357-10-0P 688357-11-1P 688357-12-2P 688357-13-3P 688357-14-4P 688357-15-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of compds. such as pyridoindolizine and indole derivs. as prostaglandin D2 antagonists for treating pathol. blushing)

RN 688356-71-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688356-89-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylthio)- (CA INDEX NAME)

RN 688356-90-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688356-95-8 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-bromophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-06-4 CAPLUS

CN Pyrido[3,4-b]indolizine-9-acetic acid, 10-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-1-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-08-6 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4- (methylsulfonyl)-5-[[4-(trifluoromethyl)phenyl]thio]- (CA INDEX NAME)

RN 688357-09-7 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2-chloro-4-fluorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-10-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4- (methylsulfonyl)-5-(2-naphthalenylthio)- (CA INDEX NAME)

RN 688357-11-1 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,3-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-12-2 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-5-[(4-methylphenyl)thio]-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-13-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(phenylthio)- (CA INDEX NAME)

RN 688357-14-4 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-15-5 CAPLUS

CN Pyrido[4,3-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

IT 688356-87-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of compds. such as pyridoindolizine and indole derivs. as prostaglandin D2 antagonists for treating pathol. blushing)

RN 688356-87-8 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)-, ethyl ester (CA INDEX NAME)

IT 794535-37-8P 887146-39-6P 887146-40-9P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of compds. such as pyridoindolizine and indole derivs. as prostaglandin D2 antagonists for treating pathol. blushing)

RN 794535-37-8 CAPLUS

CN Pyrido[1,2-a]indole-9-acetic acid, 10-[(4-chlorophenyl)thio]-3-fluoro-6,7,8,9-tetrahydro-1-(1-methylethyl)-, (9R)- (CA INDEX NAME)

Absolute stereochemistry.

RN 887146-39-6 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)-, (6S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 887146-40-9 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)-, (6R)- (CA INDEX NAME)

Absolute stereochemistry.

$$B = (CR^{1}R^{2})_{n} \xrightarrow{0} \underset{H}{\overset{Y}{\underset{R3}{\bigvee}}} (R^{4})_{2}$$

The invention relates to niacin receptor agonists of formula I; as well as AΒ pharmaceutically acceptable salts and solvates. The compds. are useful for treating dyslipidemias, and in particular, reducing serum LDL, VLDL and triglycerides, and raising HDL levels. Pharmaceutical compns. and methods of treatment are also included. Compds. of formula I wherein Y is C or N; R1 and R2 are independently H, (halo)C1-3 alkyl(oxy), OC1-3 alkyl, OH, or F; R3 is Co2H, tetrazolyl, or CONHSO2H and derivs.; R4 is H, halo, or (halo)methyl; B is (un)substituted 10-membered bicyclic aryl, (un)substituted 9- to 10membered bicyclic heteroaryl, or (un)substituted 12- to 13-membered tricyclic heteroaryl; n is an integer from 1 to 4, such that when (CR1R2)n represent CH(Me)CH2, the ring B is (un)substituted bicyclic aryl; and their pharmaceutically acceptable salts and solvates thereof. Example compound II was prepared by amidation of 3-(1-naphthyl)acrylic acid with Me anthranilate followed by catalytic hydrogenation. All the invention compds. were tested for their niacin receptor affinity. From the assay, it was determined that most of the compds. in general exhibited in vitro EC50 values in the range of about 1 μ M to as high as about 100 μ M.

AN 2006:469551 CAPLUS Full-text

DN 144:488409

TI N-Acyl anthranilic acid and related compounds as niacin receptor agonists, and their preparation, pharmaceutical compositions and methods of treatment of dyslipidemias

IN Colletti, Steven L.; Beresis, Richard T.; Chen, Weichun; Tata, James R.; Shen, Hong C.; Marley, Daria M.; Deng, Qiaolin; Frie, Jessica L.; Ding, Fa-Xiang

PA Merck & Co., Inc., USA

SO PCT Int. Appl., 125 pp. CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | | | | | KIN | D | DATE | | | APPLICATION NO. | | | | | | DATE | | | |
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| PI | | 2006052555 2006052555 | | | A2 A3 | | 20060518 20060622 | | | WO 2005-US39523 | | | | | 20051030 | | | | | |
| | | W: | ΑE, | AG, | AL, | AM, | ΑT, | ΑU, | AZ, | BA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, | | |
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| | | | KΖ, | LC, | LK, | LR, | LS, | LT, | LU, | LV, | LY, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | | |
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| | | | VN, | YU, | ZA, | ZM, | ZW | | | | | | | | | | | | | |
| | | RW: | ΑT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FI, | FR, | GB, | GR, | HU, | IE, | | |
| | | | IS, | IT, | LT, | LU, | LV, | MC, | NL, | PL, | PT, | RO, | SE, | SI, | SK, | TR, | BF, | ΒJ, | | |

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| ΑU | 2005 | 3050 | 72 | | AI | | 2006 | 0518 | | | 2005- | | _ | | | 20051 | |
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| 0.7 | 0506 | 150 | | | 7. 1 | | 0006 | 0510 | | | 2005- | | | | | 20051 | |
| CA | 2586 | 156 | | | AI | | 2006 | 0218 | | | 2005- | | | | | 20051 | |
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| EP | | | | | | | | | | | 2005- | | | | | 0051 | |
| | R: | | | | | | | | | | , ES, | | | | | | IE, |
| | | IS, | II, | ⊥⊥, | LT, | LU, | LV, | MC, | | | , PT, | | | | | | 101 |
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| 017 | 1010 | F C C O | _ | | 7 | | 0007 | 1017 | | | 2005- | | | | | 20051 | |
| CN | 1010 | 5663 | 5 | | А | | 2007 | 1017 | | | 2005- | | | | | 20051 | |
| | | | | | | | | | | | 2004- | | | | | 20041 | |
| TD | 2000 | E 1 0 0 | E 7 | | т. | | 2000 | 0605 | | | 2005- | | | | | 20051 | |
| JP | 2008 | 2189 | 5 / | | Τ | | 2008 | 0605 | | | 2007- 2004- | | | | | 0051 0041 | |
| | | | | | | | | | | | | | | | | | |
| т ът | 2007 | ONTO 1 | C E O | | 71 | | 2007 | 0021 | | | 2005- | | | | | 0051 0070 | |
| ΤN | 2007 | CNOT | 033 | | А | | 2007 | 0831 | | | 2007- 2004- | | | | | 20070 | |
| | | | | | | | | | | | 2004- 2005- | | | | | 20041 | |
| IIC | 2007 | 0200 | 1 0 1 | | 7. 1 | | 2007 | 1007 | | | | | | | - | | |
| US | 2007 | 0299 | TOT | | AI | | ZUU / | 1221 | | | 2007- | | | | | 20070 | |
| | | | | | | | | | | | 2004- | | | | | 0041 | |
| | | | | | | | | | | WU | 2005- | 0539 | 523 | | W 2 | 0051 | U 3 U |

OS MARPAT 144:488409

IT 688356-90-3P

CN

RL: PAC (Pharmacological activity); PEP (Physical, engineering or chemical process); PYP (Physical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)

(drug candidate; preparation of N-acyl anthranilic acid and related compds. as niacin receptor agonists and their methods of treatment of dyslipidemias)

RN 688356-90-3 CAPLUS

Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

T 887401-56-1P 887401-57-2P

RL: PAC (Pharmacological activity); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of N-acyl anthranilic acid and related compds. as niacin receptor agonists and their methods of treatment of dyslipidemias)

RN 887401-56-1 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)-, (+)- (CA INDEX NAME)

Rotation (+).

887401-57-2 CAPLUS RN

Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(3,4-dichlorophenyl)thio]-CN 6,7,8,9-tetrahydro-4-(methylsulfonyl)-, (-)- (CA INDEX NAME)

Rotation (-).

ΙT 688356-71-0P 688356-95-8P 688357-06-4P 688357-08-6P 688357-09-7P 688357-10-0P 688357-11-1P 688357-12-2P 688357-13-3P 688357-14-4P 688357-15-5P RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (drug candidate; preparation of N-acyl anthranilic acid and related compds. as niacin receptor agonists and their methods of treatment of dyslipidemias) RN 688356-71-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688356-95-8 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-bromophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-06-4 CAPLUS

CN Pyrido[3,4-b]indolizine-9-acetic acid, 10-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-1-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-08-6 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4- (methylsulfonyl)-5-[[4-(trifluoromethyl)phenyl]thio]- (CA INDEX NAME)

RN 688357-09-7 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2-chloro-4-fluorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-10-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(2-naphthalenylthio)- (CA INDEX NAME)

RN 688357-11-1 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,3-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-12-2 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-5-[(4-methylphenyl)thio]-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-13-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(phenylthio)- (CA INDEX NAME)

RN 688357-14-4 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-15-5 CAPLUS

CN Pyrido[4,3-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

TT

AΒ The invention is related to a method of treating atherosclerosis, dyslipidemia and related conditions wherein a nicotinic acid receptor partial/agonist I, or one of its pharmaceutically acceptable salts or solvates, is administered to a human patient in combination with a DP receptor antagonist, e.g. II, in amts. that are effective for treatment in the absence of substantial flushing. The invention is also related to the preparation of tetrazole I and DP antagonists. Thus, I was prepared by reaction of cyclopentanone with diethylmalonate (no data for the intermediate), followed by cyclization with hydrazine hydrochloride, amidation of the ester with methanolic ammonia, dehydration of the amide, and cyclization of the nitrile with NaN3. An 11step synthesis was given for pyridoindolizine II (no data for the intermediates). II, and its derivs., having a binding affinity (Ki) for CRTH2 of about \geq 0.5 μ M, and a selectivity for the DP receptor over CRTH2 of at least about 10 fold, are useful to inhibit the flushing effect seen when tetrazole I or its pharmaceutically acceptable salts or solvates are administered alone.

AN 2006:212213 CAPLUS Full-text

DN 144:292761

Preparation of 3-(2H-tetrazol-5-yl)-1,4,5,6-tetrahydrocyclopentapyrazole as nicotinic agonist and pyridoindolizine derivatives as DP receptor antagonists, and their combination useful for treating atherosclerosis, dyslipidemias and related conditions

IN Waters, M. Gerard; Turner, Mervyn

PA Merck & Co., Inc., USA

SO PCT Int. Appl., 55 pp. CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

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PΙ
    WO 2006026273
                         Α2
                                20060309
                                          WO 2005-US30001
                                                                   20050824
     WO 2006026273
                         AЗ
                                20060908
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             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
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             SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
             ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
             GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM
                                            US 2004-604443P
                                                                P 20040825
     US 20070244107
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                                20071018
                                            US 2007-631741
                                                                   20070105
                                            US 2004-604443P
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                                                                   20040825
                                                                W 20050824
                                            WO 2005-US30001
     CASREACT 144:292761
OS
     688356-71-0P, [5-[(4-Chlorophenyl)thio]-4-(methylsulfonyl)-6,7,8,9-
ΙT
     tetrahydropyrido[3,2-b]indolizin-6-yl]a cetic acid 688356-89-0P,
     [5-[(4-Chlorophenyl)sulfanyl]-4-(methylthio)-6,7,8,9-tetrahydropyrido[3,2-
     b]indolizin-6-yl]acetic acid 688356-90-3P, [5-[(3,4-
     Dichlorophenyl)thio]-4-(methylsulfonyl)-6,7,8,9-tetrahydropyrido[3,2-
     b]indolizin-6-yl]acetic acid 688356-95-8P, [5-[(4-
     Bromophenyl)thio]-4-(methylsulfonyl)-6,7,8,9-tetrahydropyrido[3,2-
     b]indolizin-6-yl]acetic acid 688357-06-4P, [10-[(3,4-
     Dichlorophenyl)sulfanyl]-1-(methylsulfonyl)-6,7,8,9-tetrahydropyrido[3,4-
     b]indolizin-9-yl]acetic acid 688357-08-6P, [4-(Methylsulfonyl)-5-
     [[4-(trifluoromethyl)phenyl]thio]-6,7,8,9-tetrahydropyrido[3,2-b]indolizin-
     6-yl]acetic acid 688357-09-7P, [5-[(2-Chloro-4-
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     b]indolizin-6-yl]acetic acid 688357-10-0P 688357-11-1P
     688357-12-2P, [5-[(4-Methylphenyl)thio]-4-(methylsulfonyl)-6,7,8,9-
     tetrahydropyrido[3,2-b]indolizin-6-yl]acetic acid 688357-13-3P,
     [4-(Methylsulfonyl)-5-(phenylthio)-6,7,8,9-tetrahydropyrido[3,2-
     b]indolizin-6-yl]acetic acid 688357-14-4P 688357-15-5P
     , [5-[(4-Chlorophenyl)thio]-4-(methylsulfonyl)-6,7,8,9-
     tetrahydropyrido[4,3-b]indolizin-6-yl]acetic acid 794535-37-8P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (DP receptor antagonist; preparation of a nicotinic agonist and DP receptor
        antagonists, and their combination useful for treating atherosclerosis,
        dyslipidemias and related conditions)
RN
     688356-71-0 CAPLUS
CN
     Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-
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tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688356-89-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylthio)- (CA INDEX NAME)

RN 688356-90-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688356-95-8 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-bromophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-06-4 CAPLUS

CN Pyrido[3,4-b]indolizine-9-acetic acid, 10-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-1-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-08-6 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4- (methylsulfonyl)-5-[[4-(trifluoromethyl)phenyl]thio]- (CA INDEX NAME)

RN 688357-09-7 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2-chloro-4-fluorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-10-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(2-naphthalenylthio)- (CA INDEX NAME)

RN 688357-11-1 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,3-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-12-2 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-5-[(4-methylphenyl)thio]-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-13-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(phenylthio)- (CA INDEX NAME)

RN 688357-14-4 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-15-5 CAPLUS

CN Pyrido[4,3-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 794535-37-8 CAPLUS

CN Pyrido[1,2-a]indole-9-acetic acid, 10-[(4-chlorophenyl)thio]-3-fluoro-6,7,8,9-tetrahydro-1-(1-methylethyl)-, (9R)- (CA INDEX NAME)

Absolute stereochemistry.

L13 ANSWER 14 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

AB A method of treating atherosclerosis is disclosed wherein nicotinic acid or another nicotinic acid receptor agonist is administered to the patient in combination with a DP receptor antagonist. The DP receptor antagonist is

administered to reduce, prevent or eliminate flushing that may otherwise occur.

- AN 2004:999670 CAPLUS <u>Full-text</u>
- DN 141:420447
- TI Method of treating atherosclerosis, dyslipidemias and related conditions
- Cheng, Kang; Waters, M. Gerard; Metters, Kathleen M.; O'Neill, Gary IN
- PΑ USA
- SO U.S. Pat. Appl. Publ., 33 pp.
- CODEN: USXXCO
- DT Patent
- LA English

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| ran. | PATENT NO. | | | | | | DATE | | | | ICAT | | | | DATE | | | |
| ΡI | | | | | | _ | 20041118 | | US 2004-844773 | | | | | 2 | 20040513 | | | |
| | | | | | | | | | | | 003- | | | | | 0030 | | |
| | AU | 20042405 | 97 | A1 | | | 20041202 | | | AU 2004-240597 | | | | | | 20040513 | | |
| | | | | | | | | | | US 2003-470665P | | | P 2003051 | | | | | |
| | | | | | | | | | WO 2004-US14980 | | | | | W 200405 | | 513 | | |
| | CA | . 2525772 | | | A1 | | 2004 | 1202 | | | | | | | 2 | 0040 | 513 | |
| | | | | | | | | US 2003-470665P | | | | | | | 0030 | | | |
| | | | | | | | | WO 2004-US14980 | | | | | , | | 0040 | | | |
| | WO | | | | | | | | | | | | | | | 20040513 | | |
| | | | | | | | ΑU, | | | | | | | | | | | |
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| | | RW: BW, | | | | | | | | | | | | | | | | |
| | | | | | | | RU, | | | | | | | | | | | |
| | | | | | | | GR, CF, | | | | | | | | | | | |
| | | | | • | Dr, | DU, | CF, | CG, | C_{\perp} | CM, | GA, | GN, | GQ, | GW, | М., | MK, | NE, | |
| | | SN, TD, | | 10 | | | | | US 2003-470665P | | | | P 20 | | 0030 | 515 | | |
| | EP | 1624871 | | A1 | | | 20060215 | | | | | | | 20040513 | | | | |
| | | R: AT, | BE, | CH, | DE, | DK, | ES, | FR, | | | | | | NL, | SE, | MC, | PT, | |
| | | IE, | SI, | LT, | LV, | FI, | RO, | MK, | CY, | AL, | TR, | BG, | CZ, | EE, | HU, | PL, | SK, | HR |
| | | | | | | | | | US 2003-470665P | | | | | P 2003051 | | | 515 | |
| | | | | | | | | | | | 004- | | | W 20040513 | | | | |
| | BR | BR 2004010273 CN 1787819 JP 2006526030 IN 2005DN04759 | | A T | | | 20060516 | | BR 2004-10273 | | | | | 2004051 | | | 513 | |
| | | | | | | | | | | | 003- | | | | P 2 | 20030515 | | |
| | | | | | | | 00000011 | | WO 2004-US14980 | | | | | | | 20040513 | | |
| | CN | | | | | | 2006 | 0614 | | | | | 2853 | | | 20040513 | | |
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| | JP | | | | | | 20061116 | | JP 2006-515355 | | | | | | | 20040513 | | |
| | | | | | | | | | | US 2003-470665P | | | | | | 0030 | | |
| | T 3.7 | | | | | | 0007 | 1007 | WO 2004-US14980 IN 2005-DN4759 | | | | | W 20040513 20051019 | | | | |
| | ΙN | 2005DN04 | 159 | | A | | 2007 | 1207 | | | | | | | | | | |
| | | | | | | | | | | | 003- 004- | | | | | 0030. 0040. | | |
| | MV | MX 2005PA12272 | | 77. | | | 20060519 | | | | | | | | | 0040: | | |
| | MA | 2005PA12. | 212 | A | | | 2006 | 0319 | MX 2005-PA12272 | | | | | | | | | |
| | | | | | | | | | US 2003-470665P WO 2004-US14980 | | | | P 2003051 W 2004051 | | | | | |
| | ΚÞ | 806008 | | В1 | | | 2008 | 0226 | | | 005- | | | | | 0040. | | |
| | 1/1/ | 00000 | | | | | 20080226 | | | | 003- | | | | | 0031. | | |
| | | | | | | | | | | | 003- | | | | | 0030. 0040. | | |
| | МО | NO 2005005957 | | | А | | | 0214 | | | 005- | | | | | 0040. | | |
| | 110 | 20000000 | <i>J</i> , | | Λ | | 2000 | V _ T | | | 003- | | | | | 0031. | | |
| | | | | | | | | | | | 004- | | | | | 0030. | | |
| | | | | | | | | | | NO 2 | 004- | ODIT | <i>J</i> 0 0 | | vv Z | 0040. | J 1 J | |

| KR | 2008003470 | A | 20080107 | KR | 2007-729888 | | 20071221 |
|----|------------|---|----------|----|--------------|----|----------|
| | | | | US | 2003-470665P | Р | 20030515 |
| | | | | WO | 2004-US14980 | W | 20040513 |
| | | | | KR | 2005-721795 | ΣZ | 20051115 |

IT 688356-71-0P 688356-89-0P 688356-90-3P 688356-95-8P 688357-06-4P 688357-08-6P 688357-09-7P 688357-10-0P 688357-11-1P 688357-12-2P 688357-13-3P 688357-14-4P 688357-15-5P 794535-37-8P

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (method of treating atherosclerosis, dyslipidemias and related

RN 688356-71-0 CAPLUS

conditions)

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688356-89-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylthio)- (CA INDEX NAME)

RN 688356-90-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688356-95-8 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-bromophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-06-4 CAPLUS

CN Pyrido[3,4-b]indolizine-9-acetic acid, 10-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-1-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-08-6 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4- (methylsulfonyl)-5-[[4-(trifluoromethyl)phenyl]thio]- (CA INDEX NAME)

RN 688357-09-7 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2-chloro-4-fluorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-10-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(2-naphthalenylthio)- (CA INDEX NAME)

RN 688357-11-1 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,3-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-12-2 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-5-[(4-methylphenyl)thio]-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-13-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(phenylthio)- (CA INDEX NAME)

RN 688357-14-4 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-15-5 CAPLUS

CN Pyrido[4,3-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 794535-37-8 CAPLUS

CN Pyrido[1,2-a]indole-9-acetic acid, 10-[(4-chlorophenyl)thio]-3-fluoro-6,7,8,9-tetrahydro-1-(1-methylethyl)-, (9R)- (CA INDEX NAME)

Absolute stereochemistry.

IT 688356-87-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

RN 688356-87-8 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)-, ethyl ester (CA INDEX NAME)

L13 ANSWER 15 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Title compds. I [wherein G = O(CH2)1-2, S(CH2)1-2, (un)substituted C1-3alkyl; Ar = hetero/aryl optionally substituted with Rg; Q = CO2H, CONH2 and derivs., SO2NH2 and derivs., SO3H, PO3H2 and tetrazolyl; one of A, B, C, or D is N and the others are independently selected from CH and CRg; E = (CH2)a-X-(CH2)b, phenylene, cycloalkylidene, cycloalkylene, etc.; a, b = 0-1, X = a bond, O, S, NH and derivs., etc.; F = (CH2)m and derivs., CH:CH and derivs.; m = 1-3; R1 = H, CN, OH and derivs., (un)substituted alkyl, etc.; R2 = H, alkyl optionally substituted with 1-6 halogens; R1R2 = oxo; or R1R2 = (un)substituted 3- or 4-membered ring, optionally containing 1 heteroatom; R3 = H, (un)substituted alkyl; Rg = halo, CN, CHO, CO2H and derivs., CONH2 and derivs., NH2 and

derivs., NO2, alkoxy, OCONH2 and derivs., SO2-alkyl, (un)substituted alk/en/yl, etc.] were prepared as prostaglandin receptor, in particular PGD2, antagonists useful for the treatment of prostaglandin-mediated diseases such as allergic rhinitis, nasal congestion and asthma (no data). Six biol. assays are given (no data). Thus, reaction of II (preparation given) with a mixture of bis(3,4-dichlorophenyl)disulfide, SO2Cl2, 1,2-dichloroethane, followed by hydrolysis gave the pyridoindolizinyl acid III.

- ΑN 2004:390250 CAPLUS Full-text
- 140:406734 DN
- ΤI Preparation of pyridopyrrolizines and pyridoindolizines as prostaglandin receptor, in particular PGD2, antagonists
- Leblanc, Yves; Dufresne, Claude; Roy, Patrick ΙN
- PA Merck Frosst Canada & Co., Can.
- SO PCT Int. Appl., 68 pp.

CODEN: PIXXD2

DT Patent

LA English

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| | PATENT NO. | | | | | KIN | D | DATE | | APPLICATION NO. | | | | | | DATE | | | |
| PI | WO | 2004039807 | | | A1 | | 2004 | 0513 | WO 2003-CA1658 | | | | | | 20031028 | | | | |
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| | | | | | | | | US 2002-422443P | | | | | | 0021 | | | | | |
| | | | | | | | | US 2003-482626P | | | | | | | 0030 | | | | |
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| | AU 2003275868 | | | A1 20040525 | | | AU 2003-275868 | | | | | | | 0031 | | | | | |
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| | CN 1732171 | | | A | | 2006 | 0200 | CN 2003-80107732 US 2002-422443P | | | | | | | 0031 | | | | |
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| | TD 2006E064E7 | | | | T 20060223 | | | | US 2003-482626P JP 2005-501791 | | | | | | | 0030 | | | |
| | UF | P 2006506457 | | | | 1 | 2000 | 0223 | US 2002-422443P | | | | | | | 0031 | | | |
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                                     US 2002-422443P
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OS MARPAT 140:406734

RN 688356-87-8 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)-, ethyl ester (CA INDEX NAME)

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ΙT
     688356-71-09, [5-[(4-Chlorophenyl)thio]-4-(methylsulfonyl)-6,7,8,9-
     tetrahydropyrido[3,2-b]indolizin-6-yl]acetic acid 688356-89-0P,
     [5-[(4-Chlorophenyl)thio]-4-(methylthio)-6,7,8,9-tetrahydropyrido[3,2-
     b]indolizin-6-yl]acetic acid 688356-90-3P, [5-[(3,4-
     Dichlorophenyl)thio]-4-(methylsulfonyl)-6,7,8,9-tetrahydropyrido[3,2-
     b]indolizin-6-yl]acetic acid 688356-95-8P, [5-[(4-
     Bromophenyl)thio]-4-(methylsulfonyl)-6,7,8,9-tetrahydropyrido[3,2-
     b]indolizin-6-yl]acetic acid 688357-06-4P 688357-08-6P
     688357-09-7P 688357-10-0P 688357-11-1P
     688357-12-2P, [5-[(4-Methylphenyl)thio]-4-(methylsulfonyl)-6,7,8,9-
     tetrahydropyrido[3,2-b]indolizin-6-yl]acetic acid 688357-13-3P,
     [4-(Methylsulfonyl)-5-(phenylthio)-6,7,8,9-tetrahydropyrido[3,2-
     b]indolizin-6-yl]acetic acid 688357-14-4P 688357-15-5P
     , [5-[(4-Chlorophenyl)thio]-4-(methylsulfonyl)-6,7,8,9-
     tetrahydropyrido[4,3-b]indolizin-6-yl]acetic acid 688357-29-1P
     688357-30-4P 688357-31-5P 688357-32-6P
     688357-33-7P 688357-34-8P 688357-35-9P
     688357-36-0P 688357-37-1P 688357-38-2P
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     688357-45-1P 688357-58-6P 688357-59-7P
     688357-60-0P 688357-61-1P 688357-62-2P
     688357-63-3P 688357-64-4P 688357-67-7P
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688357-68-8P 688357-70-2P 688357-71-3P 688357-72-4P 688357-73-5P 688357-74-6P 688357-75-7P 688357-76-8P 688357-77-9P 688357-78-0P 688357-79-1P 688357-80-4P 688357-81-5P 688357-82-6P 688357-83-7P 688357-85-9P 688357-86-0P 688357-87-1P 688357-88-2P 688357-89-3P 688357-90-6P 688357-91-7P 688357-92-8P 688357-93-9P 688357-94-0P 688357-95-1P 688357-96-2P 688357-97-3P 688357-98-4P 688357-99-5P 688358-00-1P 688358-01-2P 688358-02-3P 688358-03-4P 688358-04-5P 688358-05-6P 688358-06-7P 688358-07-8P 688358-08-9P 688358-09-0P 688358-10-3P 688358-12-5P RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prostaglandin D2 receptor antagonist; preparation of pyridopyrrolizines and pyridoindolizines as prostaglandin D2 receptor antagonists)

RN 688356-71-0 CAPLUS

CN

Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688356-89-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylthio)- (CA INDEX NAME)

RN 688356-90-3 CAPLUS

CN

Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688356-95-8 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-bromophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-06-4 CAPLUS

CN Pyrido[3,4-b]indolizine-9-acetic acid, 10-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-1-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-08-6 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4- (methylsulfonyl)-5-[[4-(trifluoromethyl)phenyl]thio]- (CA INDEX NAME)

RN 688357-09-7 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2-chloro-4-fluorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-10-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(2-naphthalenylthio)- (CA INDEX NAME)

RN 688357-11-1 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,3-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-12-2 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-5-[(4-methylphenyl)thio]-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-13-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(phenylthio)- (CA INDEX NAME)

RN 688357-14-4 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-15-5 CAPLUS

CN Pyrido[4,3-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-29-1 CAPLUS

CN Pyrido[3,4-b]indolizine-9-acetic acid, 10-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-1-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-30-4 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-2-methyl-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-31-5 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-3-methyl-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-32-6 CAPLUS

CN Pyrido[3,4-b]indolizine-9-acetic acid, 10-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-3-methyl-1-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-33-7 CAPLUS

CN Pyrido[3,4-b]indolizine-9-acetic acid, 10-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-methyl-1-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-34-8 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-fluorophenyl)thio]-6,7,8,9-tetrahydro-4-(1-methylethyl)- (CA INDEX NAME)

RN 688357-35-9 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(1-methylethyl)- (CA INDEX NAME)

RN 688357-36-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(1-methylethyl)- (CA INDEX NAME)

RN 688357-37-1 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-bromophenyl)thio]-6,7,8,9-tetrahydro-4-(1-methylethyl)- (CA INDEX NAME)

RN 688357-38-2 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2-chloro-4-fluorophenyl)thio]-6,7,8,9-tetrahydro-4-(1-methylethyl)- (CA INDEX NAME)

RN 688357-39-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(1-methylethyl)- (CA INDEX NAME)

RN 688357-40-6 CAPLUS

CN Pyrido[3,4-b]indolizine-9-acetic acid, 10-[(4-fluorophenyl)thio]-6,7,8,9-tetrahydro-1-(1-methylethyl)- (CA INDEX NAME)

RN 688357-41-7 CAPLUS

CN Pyrido[3,4-b]indolizine-9-acetic acid, 10-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-1-(1-methylethyl)- (CA INDEX NAME)

RN 688357-42-8 CAPLUS

CN Pyrido[3,4-b]indolizine-9-acetic acid, 10-[(2,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-1-(1-methylethyl)- (CA INDEX NAME)

RN 688357-43-9 CAPLUS

CN Pyrido[3,4-b]indolizine-9-acetic acid, 10-[(4-bromophenyl)thio]-6,7,8,9-tetrahydro-1-(1-methylethyl)- (CA INDEX NAME)

RN 688357-44-0 CAPLUS

CN Pyrido[3,4-b]indolizine-9-acetic acid, 10-[(2-chloro-4-fluorophenyl)thio]-6,7,8,9-tetrahydro-1-(1-methylethyl)- (CA INDEX NAME)

RN 688357-45-1 CAPLUS

CN Pyrido[3,4-b]indolizine-9-acetic acid, 10-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-1-(1-methylethyl)- (CA INDEX NAME)

RN 688357-58-6 CAPLUS

CN Pyrido[4,3-b]indolizine-6-acetic acid, 5-[(4-fluorophenyl)thio]-6,7,8,9-tetrahydro-4-(1-methylethyl)- (CA INDEX NAME)

RN 688357-59-7 CAPLUS

CN Pyrido[4,3-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(1-methylethyl)- (CA INDEX NAME)

RN 688357-60-0 CAPLUS

CN Pyrido[4,3-b]indolizine-6-acetic acid, 5-[(2,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(1-methylethyl)- (CA INDEX NAME)

RN 688357-61-1 CAPLUS

CN Pyrido[4,3-b]indolizine-6-acetic acid, 5-[(4-bromophenyl)thio]-6,7,8,9-tetrahydro-4-(1-methylethyl)- (CA INDEX NAME)

RN 688357-62-2 CAPLUS

CN Pyrido[4,3-b]indolizine-6-acetic acid, 5-[(2-chloro-4-fluorophenyl)thio]-6,7,8,9-tetrahydro-4-(1-methylethyl)- (CA INDEX NAME)

RN 688357-63-3 CAPLUS

CN Pyrido[4,3-b]indolizine-6-acetic acid, 5-[(3,4-dichlorophenyl)thio]-6,7,8,9-tetrahydro-4-(1-methylethyl)- (CA INDEX NAME)

RN 688357-64-4 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(1-methoxypropyl)- (CA INDEX NAME)

RN 688357-67-7 CAPLUS

CN Pyrido[4,3-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-4-(1-methoxypropyl)- (CA INDEX NAME)

RN 688357-68-8 CAPLUS

CN Pyrido[3,4-b]indolizine-9-acetic acid, 10-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-1-(1-methoxypropyl)- (CA INDEX NAME)

RN 688357-70-2 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-chlorophenyl)thio]-4-(1,1-dimethylethyl)-6,7,8,9-tetrahydro- (CA INDEX NAME)

RN 688357-71-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(3,4-dichlorophenyl)thio]-4-(1,1-dimethylethyl)-6,7,8,9-tetrahydro- (CA INDEX NAME)

RN 688357-72-4 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(4-bromophenyl)thio]-4-(1,1-dimethylethyl)-6,7,8,9-tetrahydro- (CA INDEX NAME)

RN 688357-73-5 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 4-(1,1-dimethylethyl)-6,7,8,9-tetrahydro-5-[[4-(trifluoromethyl)phenyl]thio]- (CA INDEX NAME)

RN 688357-74-6 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2-chloro-4-fluorophenyl)thio]-4-(1,1-dimethylethyl)-6,7,8,9-tetrahydro- (CA INDEX NAME)

RN 688357-75-7 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 4-(1,1-dimethylethyl)-6,7,8,9-tetrahydro-5-(2-naphthalenylthio)- (CA INDEX NAME)

RN 688357-76-8 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,3-dichlorophenyl)thio]-4-(1,1-dimethylethyl)-6,7,8,9-tetrahydro- (CA INDEX NAME)

RN 688357-77-9 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 4-(1,1-dimethylethyl)-6,7,8,9-tetrahydro-5-[(4-methylphenyl)thio]- (CA INDEX NAME)

RN 688357-78-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 4-(1,1-dimethylethyl)-6,7,8,9-tetrahydro-5-(phenylthio)- (CA INDEX NAME)

RN 688357-79-1 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,4-dichlorophenyl)thio]-4-(1,1-dimethylethyl)-6,7,8,9-tetrahydro- (CA INDEX NAME)

RN 688357-81-5 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(1H-pyrrol-2-ylthio)- (CA INDEX NAME)

RN 688357-82-6 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4- (methylsulfonyl)-5-(1H-1,2,4-triazol-5-ylthio)- (CA INDEX NAME)

RN 688357-83-7 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(1H-1,2,3-triazol-5-ylthio)- (CA INDEX NAME)

RN 688357-85-9 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-5-(1H-imidazol-5-ylthio)-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-86-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(1H-pyrazol-4-ylthio)- (CA INDEX NAME)

RN 688357-87-1 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(1H-pyrazol-3-ylthio)- (CA INDEX NAME)

RN 688357-88-2 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,5-dihydro-5-oxo-1H-1,2,4-triazol-3-yl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-89-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-5-(4-isothiazolylthio)-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-90-6 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-(3-furanylthio)-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-91-7 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4- (methylsulfonyl)-5-(1,2,3-thiadiazol-4-ylthio)- (CA INDEX NAME)

RN 688357-92-8 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-

(methylsulfonyl)-5-(1,2,3-oxadiazol-4-ylthio)- (CA INDEX NAME)

RN 688357-93-9 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-5-(4-isoxazolylthio)-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-94-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(3-thienylthio)- (CA INDEX NAME)

RN 688357-95-1 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(4-oxazolylthio)- (CA INDEX NAME)

RN 688357-96-2 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(4-thiazolylthio)- (CA INDEX NAME)

RN 688357-97-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,5-dihydro-5-oxo-2-furanyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-98-4 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-[(2,5-dihydro-5-oxo-3-furanyl)thio]-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688357-99-5 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4- (methylsulfonyl)-5-(1,2,4-oxadiazol-5-ylthio)- (CA INDEX NAME)

RN 688358-00-1 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4- (methylsulfonyl)-5-(3-pyridinylthio)- (CA INDEX NAME)

RN 688358-01-2 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(2-pyrazinylthio)- (CA INDEX NAME)

RN 688358-02-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(5-pyrimidinylthio)- (CA INDEX NAME)

RN 688358-03-4 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-5-(1H-indol-2-ylthio)-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688358-04-5 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-(benzo[b]thien-2-ylthio)-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688358-05-6 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-(2-benzofuranylthio)-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688358-06-7 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4- (methylsulfonyl)-5-[(4-oxo-4H-1-benzopyran-2-yl)thio]- (CA INDEX NAME)

RN 688358-07-8 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(2-quinolinylthio)- (CA INDEX NAME)

RN 688358-08-9 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-(1H-benzimidazol-2-ylthio)-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688358-09-0 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-(2-benzoxazolylthio)-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688358-10-3 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 5-(2-benzothiazolylthio)-6,7,8,9-tetrahydro-4-(methylsulfonyl)- (CA INDEX NAME)

RN 688358-12-5 CAPLUS

CN Pyrido[3,2-b]indolizine-6-acetic acid, 6,7,8,9-tetrahydro-4-(methylsulfonyl)-5-(thieno[2,3-b]pyridin-2-ylthio)- (CA INDEX NAME)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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AΒ Title compds. I [wherein R1, R2, and R3 = independently H, halo, CN, CORa, CO2Ra, CONRaRb, OCONRaRb, SO0-2-(hetero)aryl, NRaSO0-2Rb, NRaRb, NRaCORb, NRaCO2Rb, NRaCONRaRb, SO0-2NRaRb, NO2, cycloalkenyl, or (un)substituted alkyl, alkenyl, alkoxy, heterocyclyl, (hetero)aryl(oxy), or SOO-2-alkyl; Ra and Rb = independently H or (un) substituted alkyl, alkenyl, alkynyl, heterocyclyl, or (hetero)aryl; or NRaRb = heterocyclyl; R4 = H, CN, (halo)alkyl, ORa, or SOO-2alkyl; R5 = H or (halo)alkyl; or CR4R5 = (un)substituted 3- or 4-membered (hetero)cycloalkyl; R6 = H or (un)substituted alkyl; Ar = (un)substituted (hetero)aryl; A = (un)substituted alkyl; Q = CO2H, CONRaRb, CONHSO2Rc, SO2NHRa, SO2NHRa, SO3H, PO3H2, or tetrazolyl; Rc = (un)substituted alkyl; Y1 = (un) substituted alkylidene optionally interrupted by O, S, NRa, CO, OCO, etc.; Y2 = (un) substituted methylene, ethylene, or ethenylene; and pharmaceutically acceptable salts and hydrates thereof] were prepared as non-steroidal D2 prostaglandin receptor antagonists (no data). For example, 4-[2-bromo-3-(4chlorobenzyl)-1H-1-indolyl]butanal (4-step preparation given) was coupled with (carbethoxymethylene)triphenylphosphorane to give the Et (E)-2-hexenoate. Cyclization using Bu4NCl, TEA, and Pd(AcO)2 in DMF afforded Et 2-[10-(4chlorobenzyl)-6,7,8,9-tetrahydropyrido[1,2- a]indol-9-yliden]acetate. Reduction with Pd/C (5%, weight/weight) followed by saponification with LiOH in MeOH provided II. I are useful for the treatment of prostaglandin-mediated diseases such as allergic rhinitis, nasal congestion, and asthma (no data). ΑN

2002:906233 CAPLUS <u>Full-text</u>

DN 138:4518 Preparation of dihydropyrrolo[1,2-a]indole and tetrahydropyrido[1,2-ΤI a]indole derivatives as prostaglandin D2 receptor antagonists for treatment of allergic rhinitis, nasal congestion, and asthma Wang, Zhaoyin; Dufresne, Claude; Guay, Daniel; Leblanc, Yves INMerck Frosst Canada & Co., Can.; Beaulieu, Christian PΑ SO PCT Int. Appl., 225 pp. CODEN: PIXXD2 DT Patent LA English FAN.CNT 1 APPLICATION NO. PATENT NO. KIND DATE ____ _____ ______

 WO 2002094830
 A2
 20021128

 WO 2002094830
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 20030306

 WO 2002-CA745 20020522 PΤ W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG US 2001-293077P P 20010523 CA 2002-2447779 CA 2447779 A1 20021128 20020522 P 20010523 US 2001-293077P W 20020522 WO 2002-CA745 AU 2002302248 A1 20021203 AU 2002-302248 20020522 20080306 AU 2002302248 В2 P 20010523 US 2001-293077P W 20020522 EP 2002-729708 A2 EP 1395590 20040310 20020522 EP 1395590 В1 20060927 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR US 2001-293077P P 20010523 W 20020522 WO 2002-CA745 Τ JP 2004534774 20041118 JP 2002-591503 20020522 P 20010523 US 2001-293077P W 20020522 WO 2002-CA745 20020522 P 20010523 AT 340796 Τ 20061015 AT 2002-729708 US 2001-293077P ES 2272712 Т3 20070501 ES 2002-729708 20020522 US 2001-293077P P 20010523 A1 US 20040180934 20040916 US 2003-474929 20031015 US 7144913 В2 20061205 US 2001-293077P P 20010523 WO 2002-CA745 W 20020522 OS MARPAT 138:4518 476620-31-2P, [10-[(4-Chlorophenyl)thio]-3-fluoro-1-isopropyl-ΤT 6,7,8,9-tetrahydropyrido[1,2-a]indol-9-yl]acetic acid 476620-37-8P , [10-[(4-Chlorophenyl)thio]-3-fluoro-1-(methylsulfonyl)-6,7,8,9tetrahydropyrido[1,2-a]indol-9-yl]acetic acid 476620-75-4P 476620-81-2P RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prostaglandin D2 receptor antagonist; preparation of pyrroloindole and

pyridoindole prostaglandin D2 receptor antagonists by cyclization of (indolyl)alkanoates and (indolyl)alkenoates)

RN 476620-31-2 CAPLUS

CN Pyrido[1,2-a]indole-9-acetic acid, 10-[(4-chlorophenyl)thio]-3-fluoro-6,7,8,9-tetrahydro-1-(1-methylethyl)- (CA INDEX NAME)

RN 476620-37-8 CAPLUS

CN Pyrido[1,2-a]indole-9-acetic acid, 10-[(4-chlorophenyl)thio]-3-fluoro-6,7,8,9-tetrahydro-1-(methylsulfonyl)- (CA INDEX NAME)

RN 476620-75-4 CAPLUS

CN Pyrido[1,2-a]indole-9-acetic acid, 10-[(3-bromo-4-chlorophenyl)thio]-3-fluoro-6,7,8,9-tetrahydro-1-(1-methylethyl)- (CA INDEX NAME)

RN 476620-81-2 CAPLUS

CN Pyrido[1,2-a]indole-9-acetic acid, 10-[(4-chlorophenyl)thio]-6,7,8,9-tetrahydro-1-(methylsulfonyl)-3-(phenylmethoxy)- (CA INDEX NAME)